

Supplementary Information

Precursor Reaction Pathway Leading to BiFeO₃ Formation: Insights from Text-Mining and Chemical Reaction Network Analyses

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Data processing for text-mining and data analysis

We extracted data on precursor materials used in synthesis recipes and final crystallinity results from various papers. For data analysis, we introduced a uniform vocabulary for materials. For text-mining data analysis, we simplified the data representation. A summary of all the materials can be found in Table S1.

Table S1. Set of all materials mentioned in the text-mined dataset of 340 BiFeO₃ sol-gel synthesis recipes. Precursors in bold are discussed in detail in the main work.

Metal precursor	Solvent	Chelating agent	Dehydrating agent	Surfactant	Impurities
Bi(NO₃)₃*5H₂O Fe(NO ₃) ₃ *9H ₂ O Fe(CH ₃ COO) ₂ Bi(CH ₃ COO) ₃ Bi ₂ O ₃ Fe(C ₅ H ₇ O ₂) ₃ Fe ₂ O ₃	CH₃O(CH₂)₂OH (CH ₂ OH) ₂ CH ₃ CH ₂ CO ₂ H HCON(CH ₃) ₂ CH ₃ NO CH ₃ CH ₂ OH CH ₃ CHCH ₂ OH H ₂ O	CH ₃ COOH HOC(CH ₂ CO ₂ H) ₂ HNO ₃ HN(CH ₂ CH ₂ OH) ₂ OH(CH ₂) ₂ NH ₂ CH ₃ COCH ₂ COCH ₃	(CH ₃ CO) ₂ O (CH ₃) ₂ CO NH ₂ COH HCON(CH ₃) ₂	HOCH ₂ CH ₂ NH ₂ NH ₂ CH ₂ CH ₂ NH 2 (C ₆ H ₉ NO) _n	Bi ₂ Fe ₄ O ₉ Bi ₂ O ₃ Fe ₂ O ₃ Bi ₂₅ Fe ₃₉ Bi ₂₅ Fe ₄₀ Bi ₃₆ Fe ₂₀₅₇ Bi ₂ Fe ₄₀₇ FeO Bi ₄₆ Fe ₂₀₇₂

We consider three types of final crystallinity: pure BiFeO₃ crystals (251 cases), 80 cases of BiFeO₃ crystals with phase impurities such as Bi₂Fe₄O₉ (21 cases), Bi₂O₃ (11 cases), Fe₂O₃ (9 cases), and combinations including Bi₂₅Fe₃₉, Bi₂₅Fe₄₀, Bi₃₆Fe₂₀₅₇, Bi₂Fe₄₀₇, FeO, and Bi₄₆Fe₂₀₇₂, plus 9 amorphous cases. Regarding metal precursors, we differentiate between cases where both salts are nitrates (318 cases) and 22 other cases: 15 involved a different precursor for bismuth (acetate used 7 times or oxide once) or iron (acetylacetonate used 10 times, oxide twice, citrate once, and acetate once). In 7 recipes, metal precursors were not mentioned.

For solvents, the two most popular options are 2-methoxyethanol, used in 248 recipes (224 pure and 24 in combination with other solvents: 19 with ethylene glycol, 2 with propionic acid, 1 each with dimethylformamide (DMF), formamide, or polyethylene glycol (PEG)), and ethylene glycol, used in 53 recipes (52 without additives and 1 with ethanol). Other solvents used include

2-ethoxyethanol (5 recipes), DMF (3 recipes), propylene glycol with ethanol (1 recipe), trimethylene glycol (1 recipe), water (1 recipe), and ethanol (1 recipe). In 27 recipes, the solvent was not reported.

For chelating agents, acetic acid was the most popular, used in 114 recipes either alone with a solvent (80 recipes) or with additives such as acetylacetone (26 cases), citric acid (6 cases), nitric and citric acids (1 case), and diethanolamine (DEA) (1 case). Citric acid was used alone in 39 recipes. Additionally, 18 cases included nitric acid, either with citric acid and ammonium hydroxide (12 recipes), alone (3 cases), with citric acid (2 cases), or with citric and acetic acids (1 case). A total of 169 recipes did not use chelating agents.

The precursor solution might include several other additives such as dehydrating agents and surfactants. For dehydrating agents, 187 recipes did not use any; acetic anhydride was used in 92 recipes, glacial acetic acid in 57 recipes, and other agents included DMF (3 cases), formamide (1 case), and acetone (1 case). Note that glacial acetic acid interacts with water to form acetic acid, thus linking this case to the addition of acetic acid as a chelating agent. Only 39 recipes used surfactants: 36 used ethanolamine, while single recipes used ethylenediamine, polyvinylpyrrolidone (PVP), or PEO-PPO-PEO.

Chemical Reaction Network step 1: generating intermediates

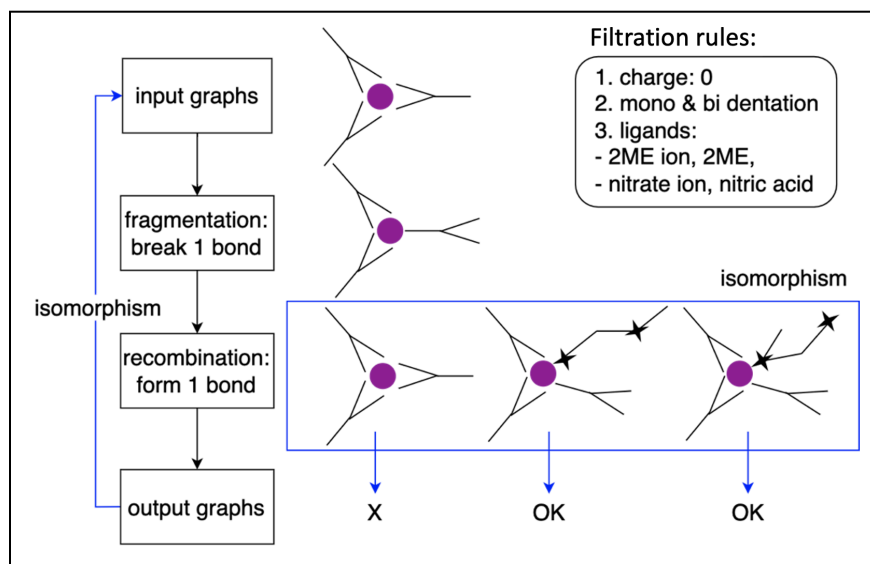
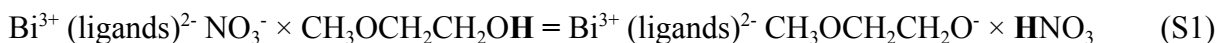


Figure S1. Fragmentation – recombination loop for generating intermediate molecular graphs. Depicted shows 1 bond breaking and 1 bond attachment with bidental ligands. Every set is filtered out for isomorphs, recombinants are also cleaned by charge and ligand dentality.

To populate the species dataset, we focused on Bi-O bond patterns and produced molecular graphs of metal complexes during the gradual replacement of nitrite ligands in $[\text{Bi}(\text{NO}_3)_3]$ with solvent ligands, targeting the product $[\text{Bi}(\text{OCH}_2\text{CH}_2\text{OCH}_3)_3]$. The latent molecular graph

representation we used required information only on atomic bonds: a metal complex was treated as a list of bonded atomic pairs without distinction between ionic and coordination bonds and without information on bond lengths and angles. Each Chemical Reaction Network (CRN) species' molecular graph was obtained as a result of a single Bi-O bond breaking and a new Bi-O bond formation, which we call the fragmentation-recombination loop, as depicted in Figure S1. The loop begins with input molecular graphs; initially, we have [Bi(NO₃)₃]: a Bi³⁺ ion bidentally coordinated by three NO₃⁻ ligands, totaling six Bi-O bonds (three ionic and three coordination). The loop proceeds with a fragmentation step: in each input molecular graph, the algorithm iterates through all Bi-O bonds, breaks one bond, and populates a set of fragment graphs. Then, all isomorphs are removed. During the first loop shown in Figure S1, all six fragments produced belong to the same isomorph, and there is only one fragment: a Bi³⁺ ion bidentally coordinated by two NO₃⁻ ligands and monodentally coordinated by one nitrite ligand, yielding a total of 5 Bi-O bonds. The next step is recombination: each fragment graph forms one new Bi-O bond either by adding a bond with existing ligands or by attaching a new ligand (2ME, 2ME ion, nitrite ion, nitric acid). We include nitric acid to target the proton swap elementary reaction, exemplified by Equation (S1):



The recombinant set is cleansed of isomorphs, charged species, and graphs with tridental ligands. The algorithm recreates the input graph by restoring the bidental nitrite ion, attaching 2ME to the hydroxyl oxygen (-OH), and attaching 2ME to the methoxy oxygen (-OCH₃). The clean recombinant set also includes a fragment with attached nitric acid, which is not shown in Figure S1. Then, those recombinants that are non-isomorphic with the previous inputs are used as input for the next fragmentation-recombination loop. This process is repeated until no new recombinants can be formed. The final set of intermediate species' molecular graphs includes a total set of fragments (all with a coordination number of 5) and a total set of recombinants (all with a coordination number of 6).

Architector. List of ligands

Table S2. Vocabulary of ligands in Architector.

Ligand name	Object
hno3_mono	{'smiles': '[N+](=O)(O)[O-]', 'coordList':[1]}
hno3_bi	{'smiles': '[N+](=O)(O)[O-]', 'coordList':[1,3], 'ligType':'bi_cis'}
no3_ion_mono	{'smiles': '[N+](=O)([O-])[O-]', 'coordList':[1]}
no3_ion_bi	{'smiles': '[N+](=O)([O-])[O-]', 'coordList':[1,2], 'ligType':'bi_cis'}
moe_0_mono	{'smiles': 'COCCO', 'coordList':[4]}
moe_0_c_mono	{'smiles': 'COCCO', 'coordList':[1]}
moe_0_bi	{'smiles': 'COCCO', 'coordList':[1,4], 'ligType':'bi_cis'}
moe_ion_mono	{'smiles': 'COCC[O-]', 'coordList':[4]}

moe_ion_bi	{'smiles':'COCC[O-]', 'coordList':[1,4], 'ligType':'bi_cis'}
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Comparison of frequency calculations between QChem and TBLite

Table S3. Variance between TBLite and QChem potentials from frequency calculations.

Molecule	TBLite H, eV	QChem H, eV	Var, %
Bi(NO ₃) ₃ *5H ₂ O	5.28	5.52	4
2ME	3.19	3.31	3
HNO ₃	0.81	0.86	5
Bi(NO ₃) ₂ (2ME)* 5H ₂ O	7.63	7.97	4
2ME dehydr +	2.72	2.82	3

Dimer study

Molecular graphs for dimers are shown in Figure S2.

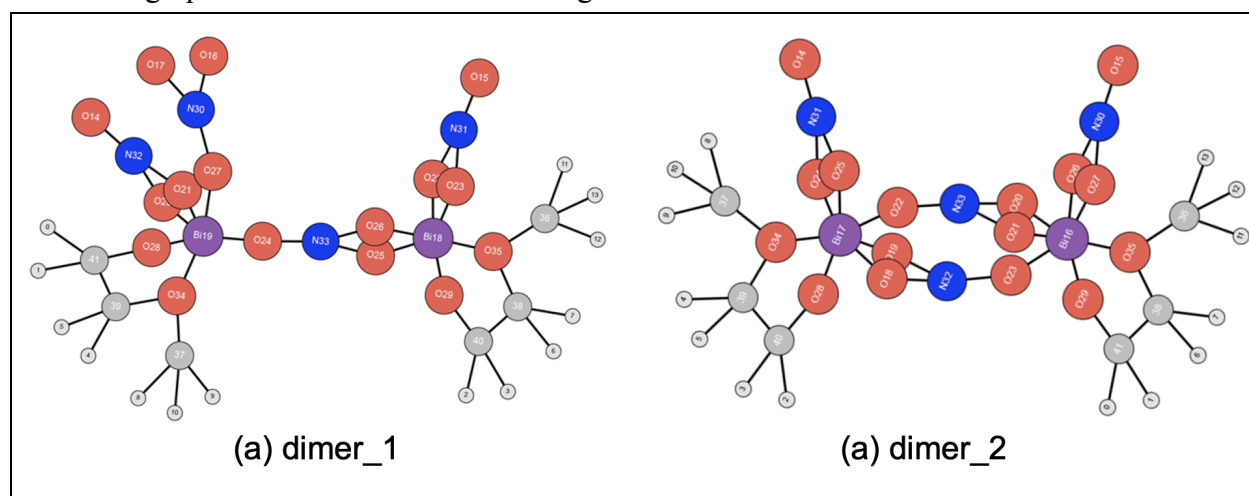


Figure S2. Dimer molecular graphs: (a) dimer_1 with a single NO₃ ion bridge, and (b) dimer_2 with two NO₃ ion bridges.

Table S4. Gibbs free energy at room temperature for converged dimer conformer calculations. Green cells have energies lower than the doubled energy of a metal complex with single MOE substitution (Sub1 from main paper).

G [eV]	3D conformer
-56830.93	dimer_1_8
-56830.69	dimer_2_5
-56830.67	dimer_2_6
-56830.65	dimer_2_8
-56830.59	dimer_2_1

-56830.59	dimer_2_9
-56830.53	dimer_1_3
-56830.52	2 x Sub1
-56830.51	dimer_1_1
-56830.5	dimer_2_3
-56830.49	dimer_2_4
-56830.47	dimer_2_10
-56830.47	dimer_2_7
-56830.4	dimer_1_4
-56830.36	dimer_1_5
-56830.33	dimer_2_2
-56830.15	dimer_1_9
-56830.12	dimer_1_2

Dimer lowest energy structure is depicted in Figure S3.

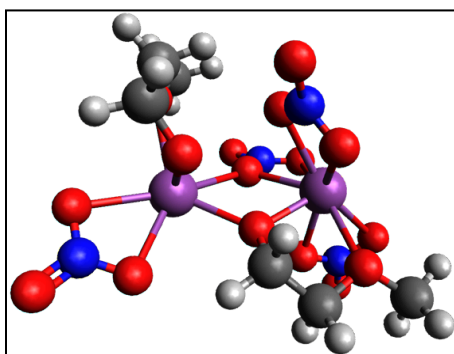


Figure S3. Lowest energy dimer structure conformer (dimer_1_8 from Table S4).

XYZ for dimer_1_8 conformer:

42

H	1.35853208	2.02469593	-0.52548560
H	1.46319799	2.11486251	1.25193363
H	-3.36185280	2.64562497	0.33802183
H	-2.80214255	2.79294166	-1.34702943
H	3.72250894	1.93451469	0.15892826
H	3.38420312	0.57368840	1.28229169
H	-4.64367328	1.04457148	-0.95863111
H	-3.16500081	0.42873503	-1.77875752
H	5.17828310	0.58364931	-1.24088610
H	4.98758843	-0.74495741	-0.04629302
H	4.57007167	-1.01781959	-1.76972484
H	-3.51595994	-2.04523068	0.76498917

H	-4.85131401	-1.42841961	-0.25962082
H	-3.24160551	-1.76813029	-0.98739853
O	3.75825964	-3.61573043	1.51434363
O	-1.47879379	3.73193168	3.75726250
O	-1.20139814	1.12698736	-3.17510992
O	-0.89438784	-0.55790791	-1.85301703
Bi	-1.27792962	0.40697477	1.40570590
Bi	1.28803118	-1.33704646	-0.93600625
O	3.31187849	-3.09551788	-0.53704519
O	2.26579425	-2.11577778	1.07322277
O	-2.50462549	2.14365144	2.70547041
O	-0.35170569	2.22165366	2.69476787
O	0.23264899	-3.79816428	-0.37684482
O	-0.53708167	-1.97297213	0.44214665
O	-1.43465454	-3.85887788	1.00426473
O	0.78072474	0.64969658	-2.45419309
O	0.82063218	0.29493778	0.49291245
O	-1.49425558	1.83787507	-0.09201048
N	-0.45970597	0.43522460	-2.51831301
N	-1.45448055	2.73849558	3.07855142
N	3.14401913	-2.97674793	0.69193648
N	-0.60041539	-3.26526628	0.36845583
O	3.22689037	0.12981633	-0.73436678
O	-3.35293896	-0.07935976	0.21417387
C	-3.76747207	-1.41303025	-0.09119056
C	4.57685090	-0.28809401	-0.95680091
C	-3.56585032	0.85791309	-0.85233126
C	3.08167780	1.06171569	0.34356260
C	-2.82630179	2.12714285	-0.47330157
C	1.63175328	1.47175004	0.38141615

Bi-O structures from the Crystal Structure Database

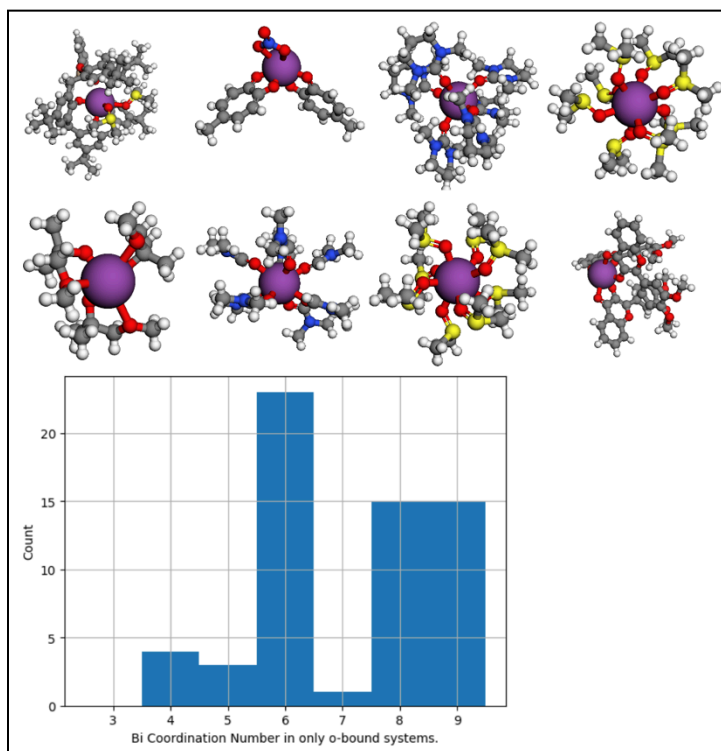


Figure S4. CSD analysis on Bi-metal complexes.

Water leaves Bi coordination to hydrogen-bond with 2ME ligands

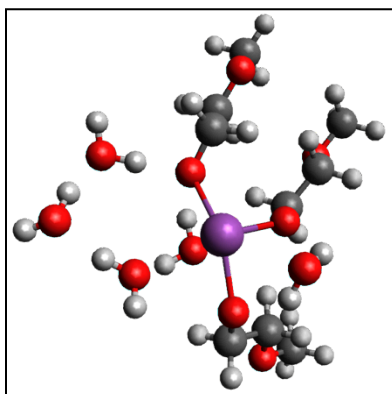


Figure S5. Optimized structure for potential products with water. Water is unlikely to participate in Bi coordination; it prefers 2ME. Bi – water interaction is much weaker than hydrogen bonds.

Adding 4th 2ME to Bi(2ME-)₃ structure

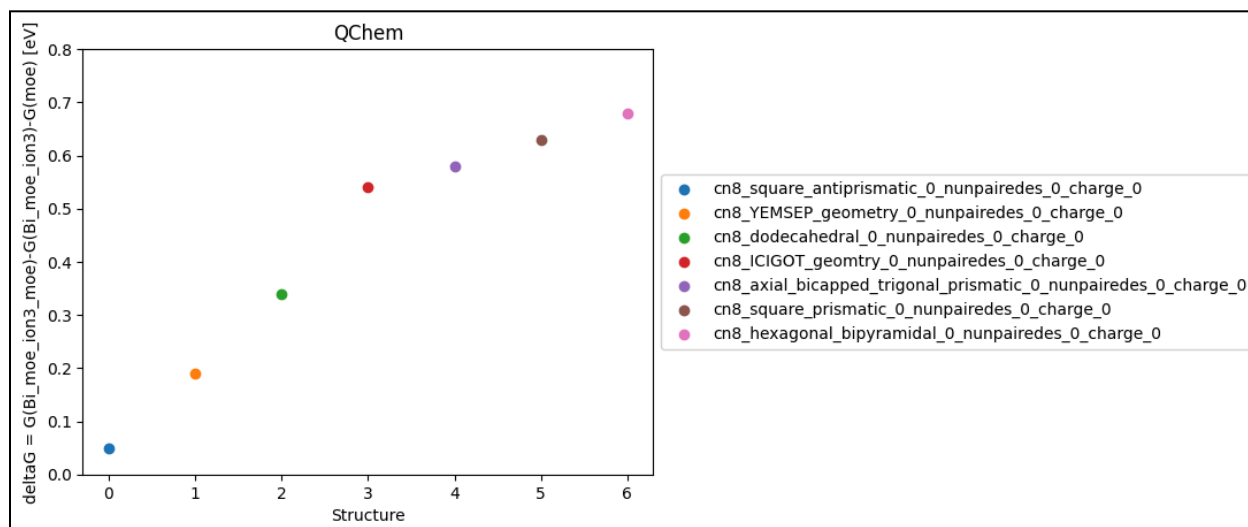


Figure S6. CN=6 metal complex energy is set as zero. All CN=8 structures are higher in energy.

Reaction thermodynamic potentials

We calculated thermodynamic potentials (Table S5) to estimate the chemical reaction thermodynamic force for the first substitution reaction step.

Table S5. Chemical reaction structures calculated thermodynamic potentials.

Name	Formula	G, eV	H, eV	S, eV
Bismuth nitrate	Bi1N3O9	-28727.47	1.68	0.005
Bi(2ME) ₃	Bi1C9H21O6	-27789.98	8.70	0.007
Nitric acid	H1N1O3	-7645.00	0.80	0.003
2ME	C3H8O2	-7332.80	3.17	0.003
Bi(NO ₃) ₂ (2ME-)*HNO ₃	Bi1C3H8N3O11	-36060.11	4.88	0.007

Set of reactions from CRN

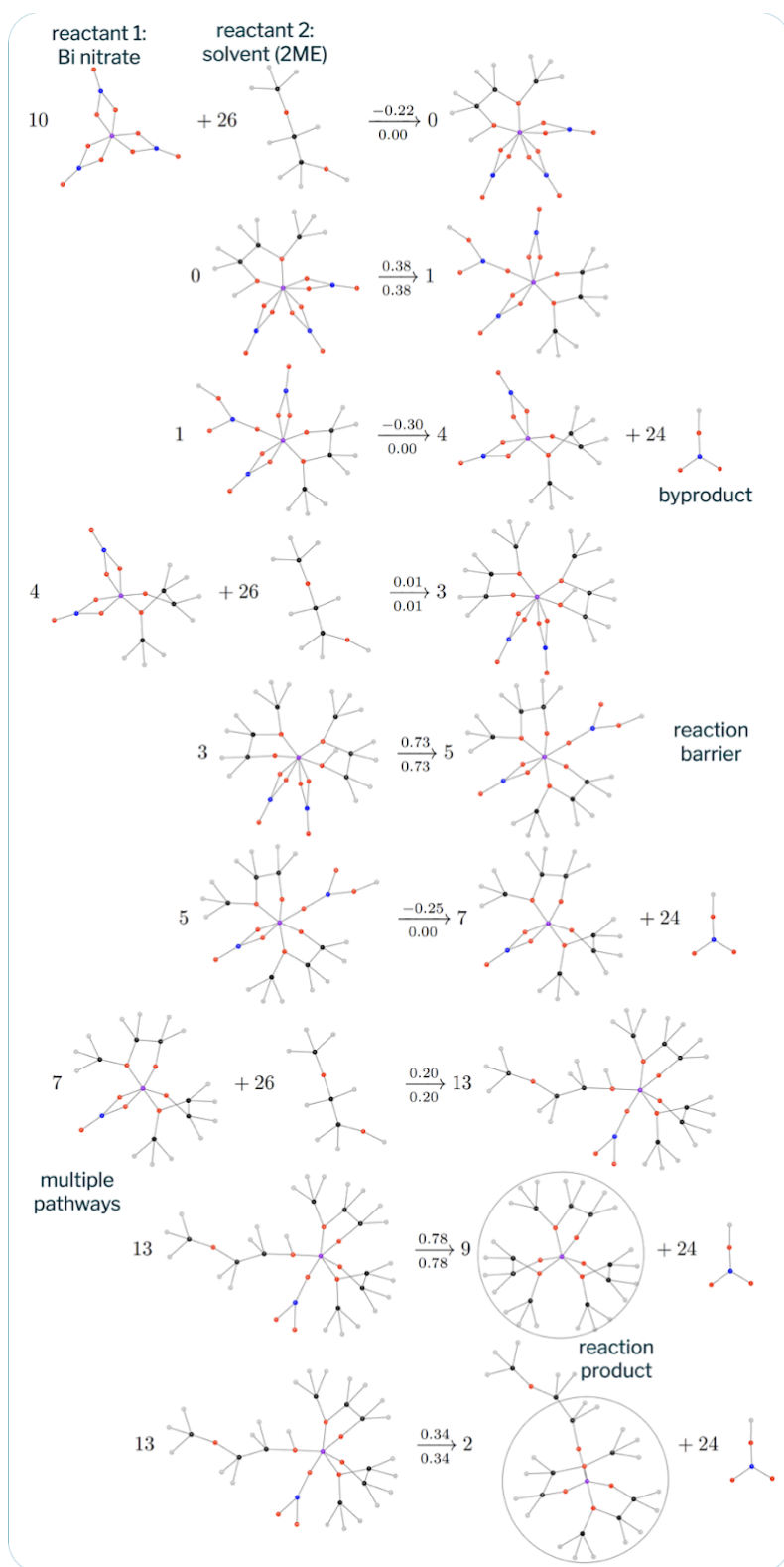


Figure S7. Step-by-step schema of the reaction pathway from CRN. Numbers next to molecular graphs are indexes. Energy ΔG is above the arrow in eV, and the barrier is below. Atoms: purple Bi, red O, blue N, black C, gray H.

Full solvation path - 2 and 3 nitrite substitution with solvent

Substituting two nitrite ligands with two solvent ions is more challenging but feasible under appropriate conditions. The process is summarized in Equation S1:

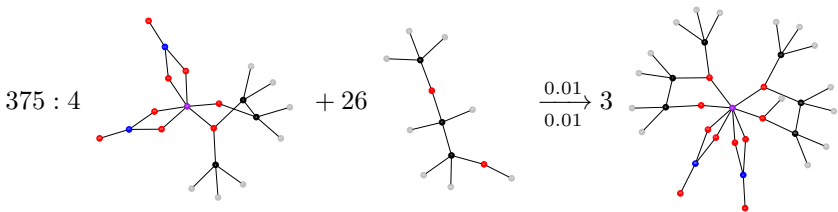


Continuing from the partial solvation described in the main paper, this process involves solvation with a ΔG of 0.01 eV, proton transfer with a ΔG of 0.73 eV, and acid detachment with a ΔG of less than 0 eV, bringing the overall $\Delta G(\text{S1})$ to 0.35 eV (relative to the initial state) with the highest energy cost of 0.60 eV. The substitution of 3 nitrite ligands with 3 solvent molecule ions is summarized in Equation (1) of the main paper and presents a considerable energy cost; even continuing solvation becomes expensive with a ΔG of 0.20 eV. Proton transfer and acid detachment are even more demanding, with a ΔG of 0.78 eV for $[\text{Bi}(2\text{MEdehydr-})_3]$ in a coordination number (CN) of 6, or a ΔG of 0.34 eV in a CN of 5. The structure with the lower energy features a CN of 5, with two solvents being bidentate and the third monodentate, stabilized by a hydrogen bond interaction between 2ME ligands. Overall, the gradual replacement of nitrite with solvent ligands within a single-metal complex reaction yields a $\Delta G(1)$ of 0.89 eV, with the highest pathway point located at 1.03 eV, making the reaction pathway significantly endergonic. The CRN analysis demonstrates that all intermediate steps of the full solvation process are unfavorable.

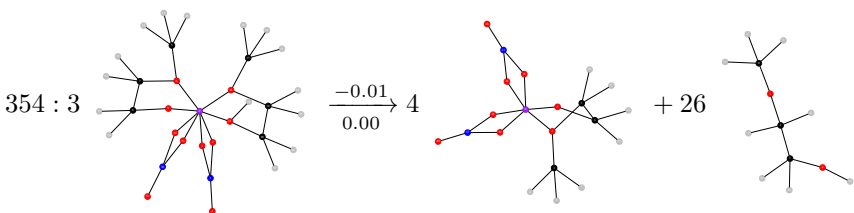
Next pages provide a full output of the Reaction Network

- **Consumption report**
- **Full list of elementary steps**

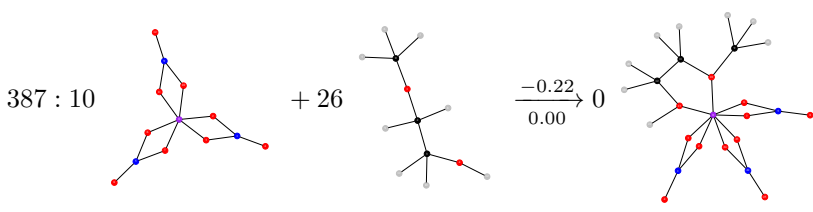
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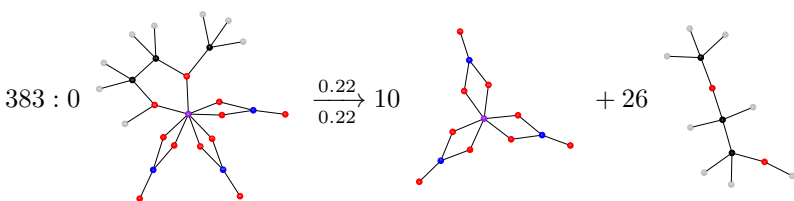
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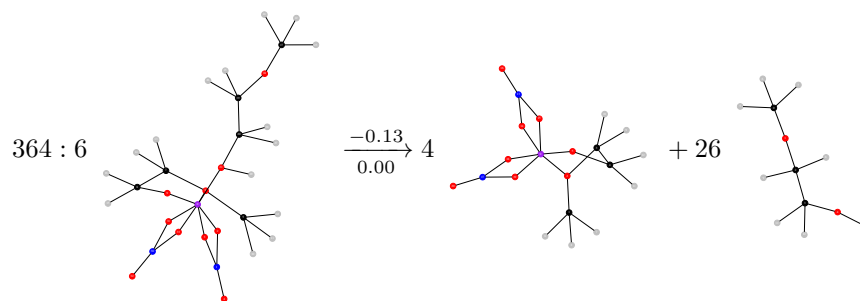
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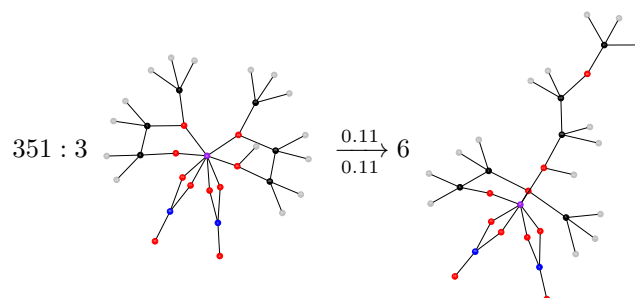
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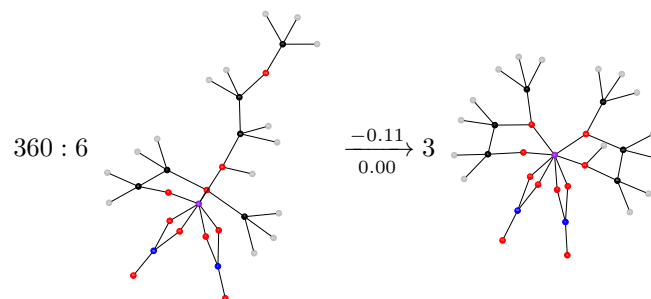
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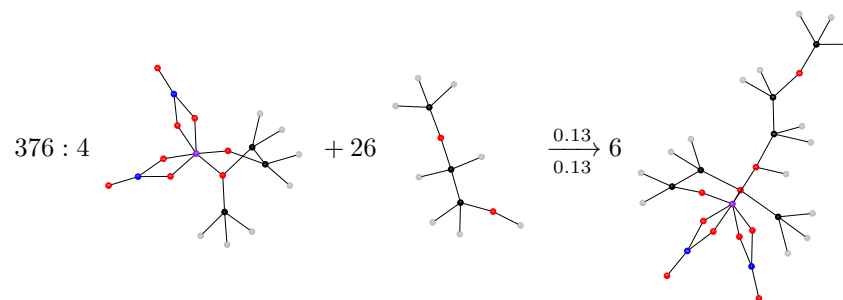
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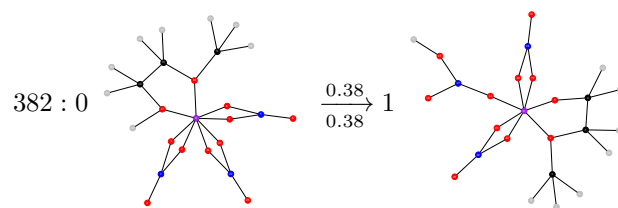
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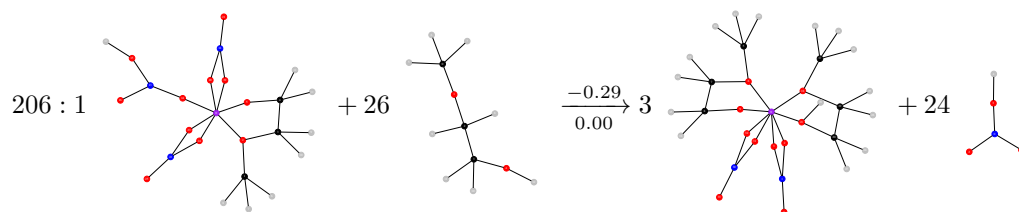
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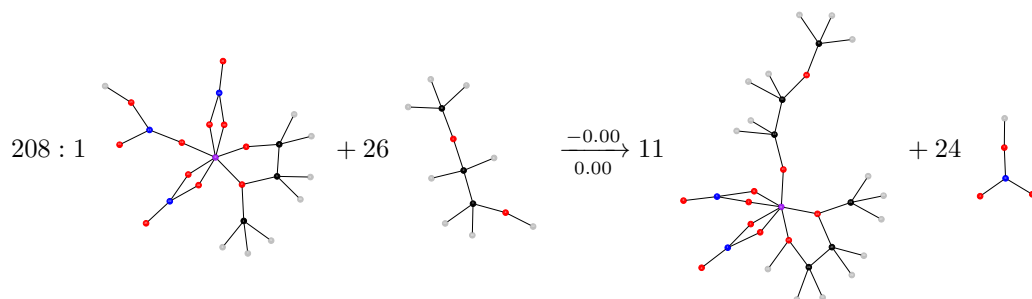
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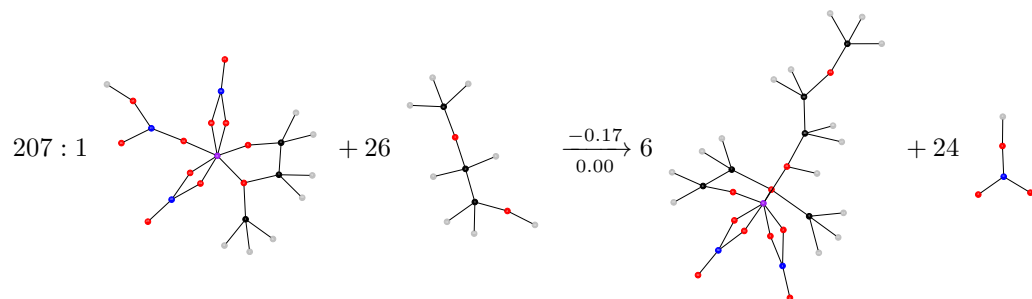
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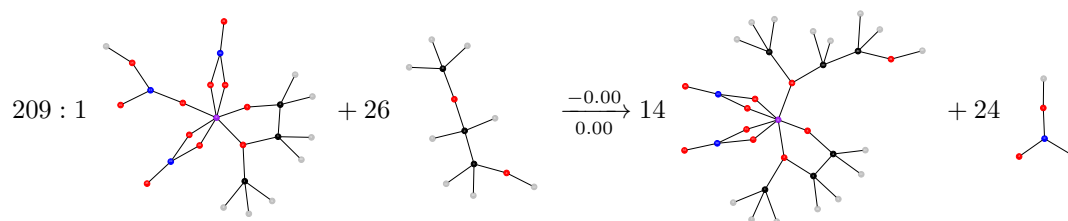
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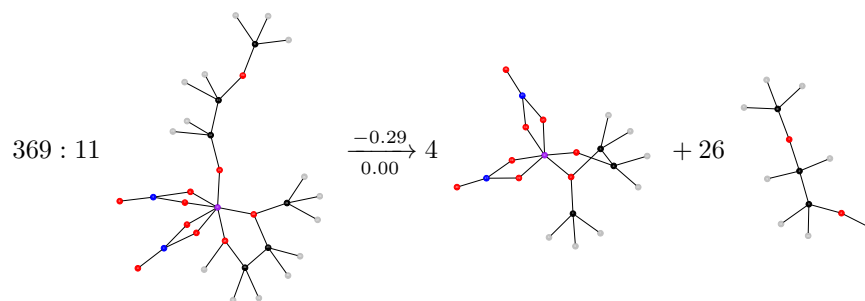
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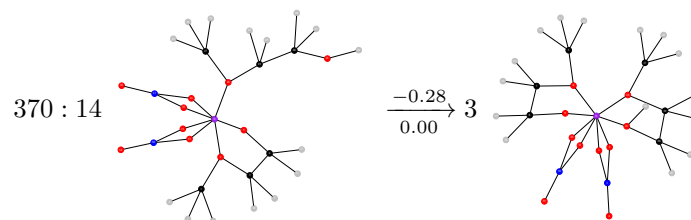
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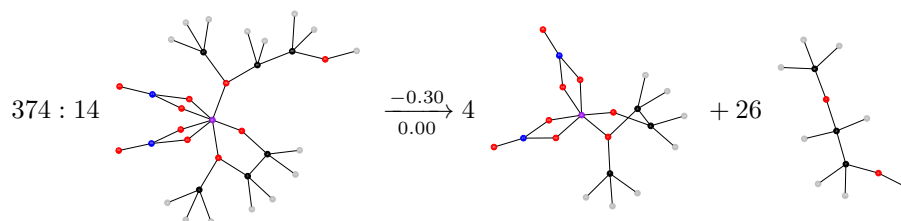
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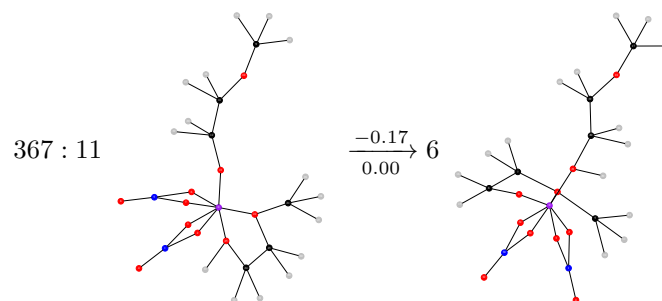
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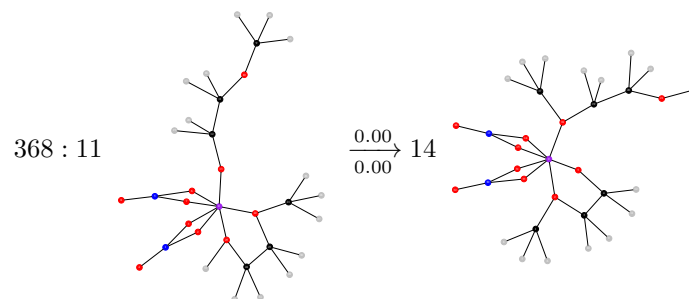
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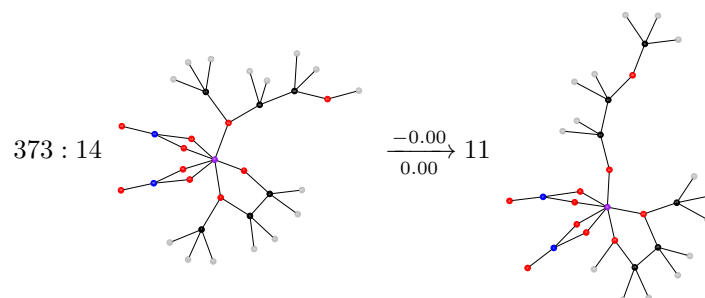
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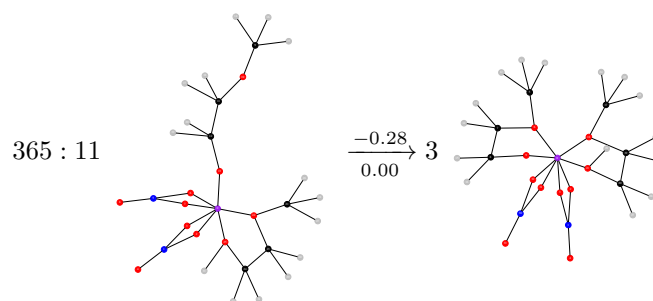
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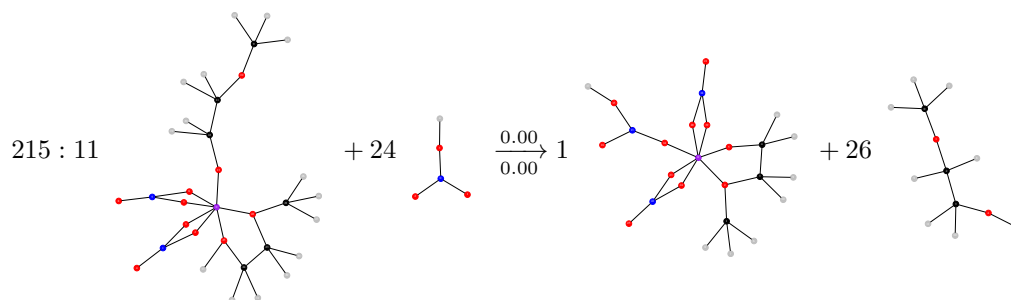
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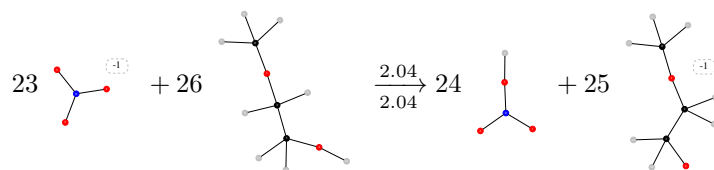
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11 occurrences of:



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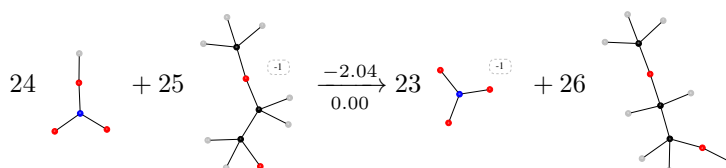
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product bonds broken:

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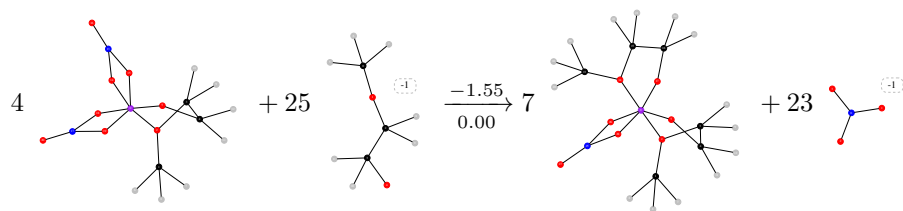
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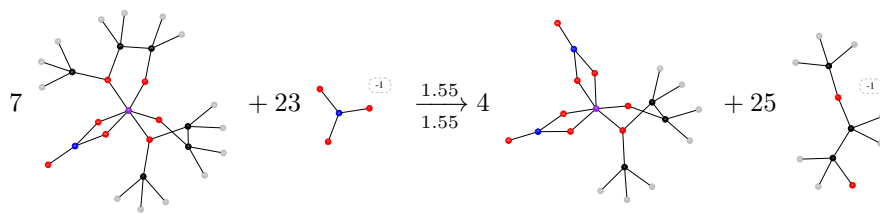
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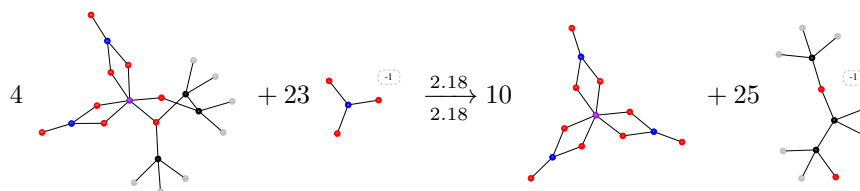
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fragment matching found
Terminal.KEEP



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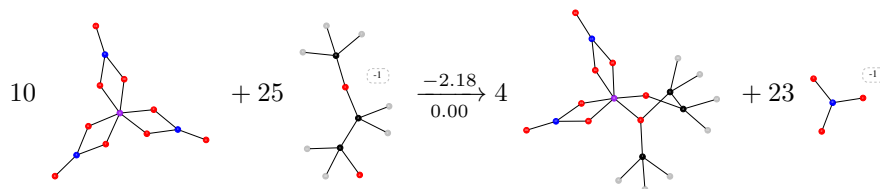
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[(0, 0), (0, 10)]

[(0, 0), (0, 11)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 10)]

[(0, 0), (0, 11)]

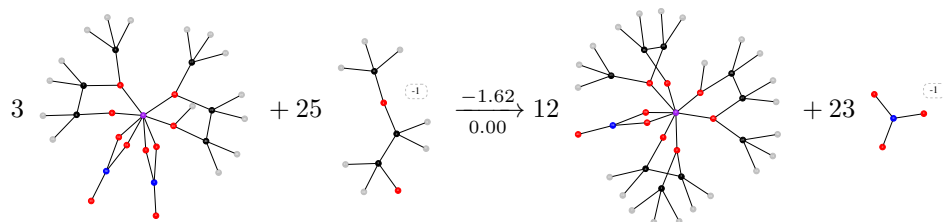
product bonds broken:

[(0, 0), (0, 5)]

[(0, 0), (0, 2)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 31)]

[(0, 0), (0, 32)]

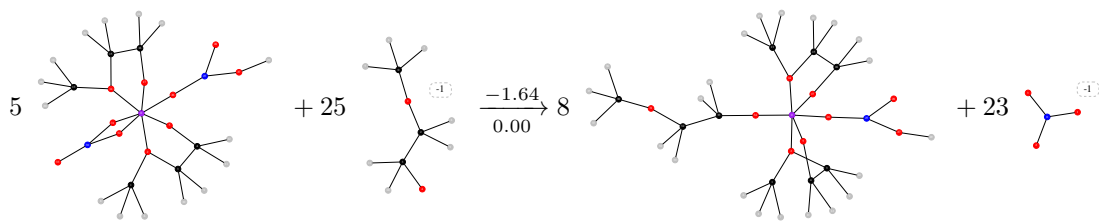
product bonds broken:

[(0, 0), (0, 17)]

[(0, 0), (0, 14)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 32)]

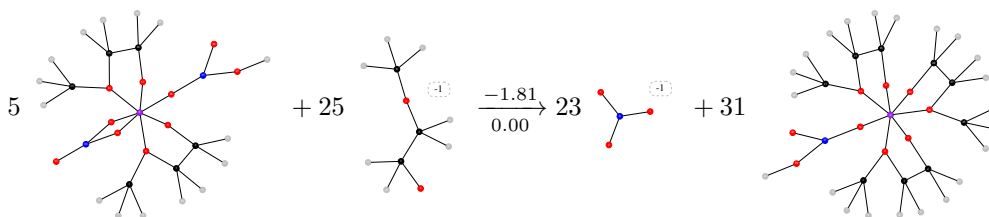
[(0, 0), (0, 31)]

product bonds broken:

[(0, 0), (0, 34)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 32)]

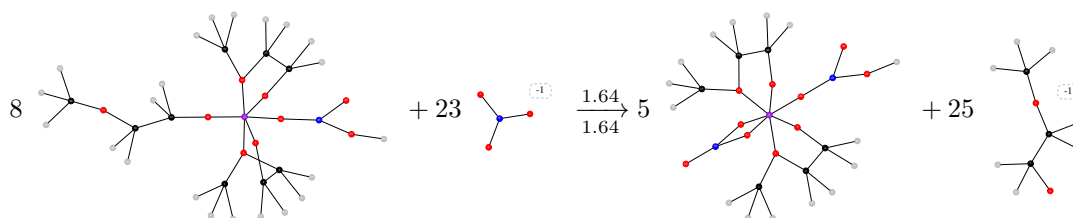
[(0, 0), (0, 31)]

product bonds broken:

[(1, 0), (1, 17)]

[(1, 0), (1, 14)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

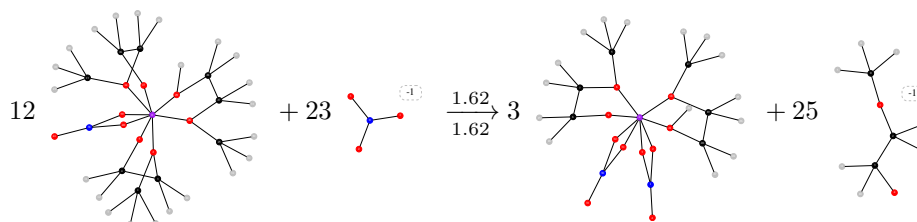
[(0, 0), (0, 34)]

product bonds broken:

[(0, 0), (0, 32)]

[(0, 0), (0, 31)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 17)]

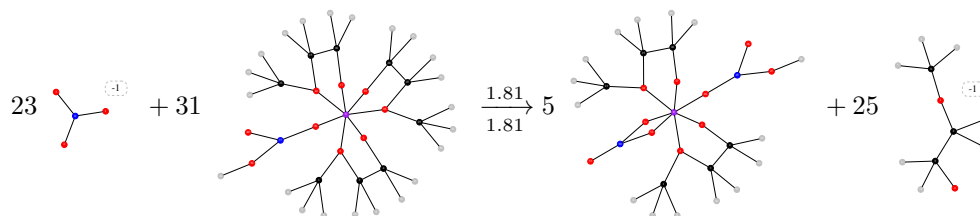
[(0, 0), (0, 14)]

product bonds broken:

[(0, 0), (0, 31)]

[(0, 0), (0, 32)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(1, 0), (1, 17)]

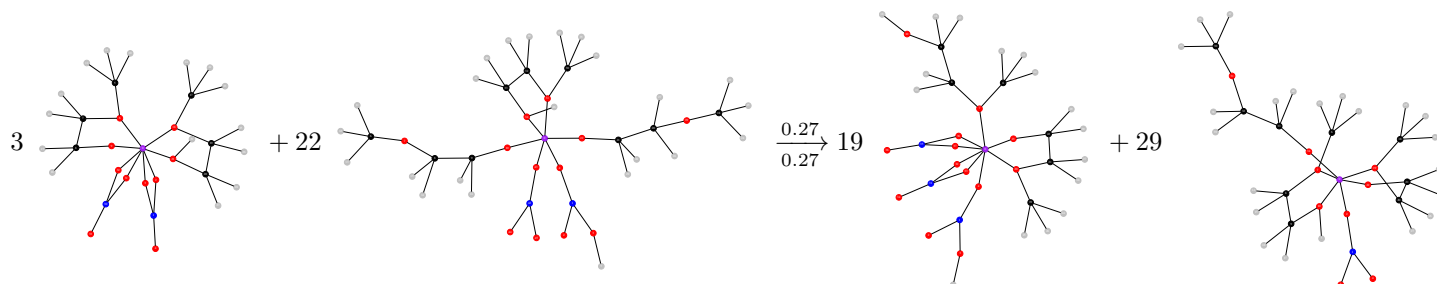
[(1, 0), (1, 14)]

product bonds broken:

[(0, 0), (0, 32)]

[(0, 0), (0, 31)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 21)]

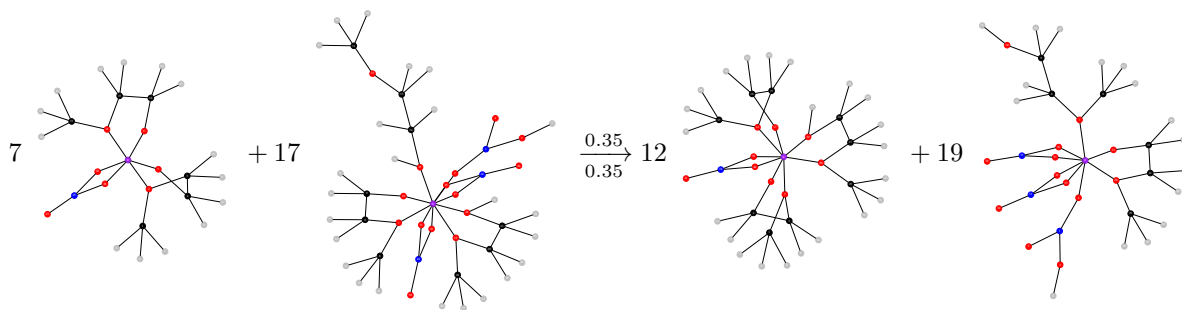
[(1, 0), (1, 4)]

product bonds broken:

[(0, 0), (0, 4)]

[(1, 0), (1, 19)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(1, 0), (1, 22)]

[(1, 0), (1, 35)]

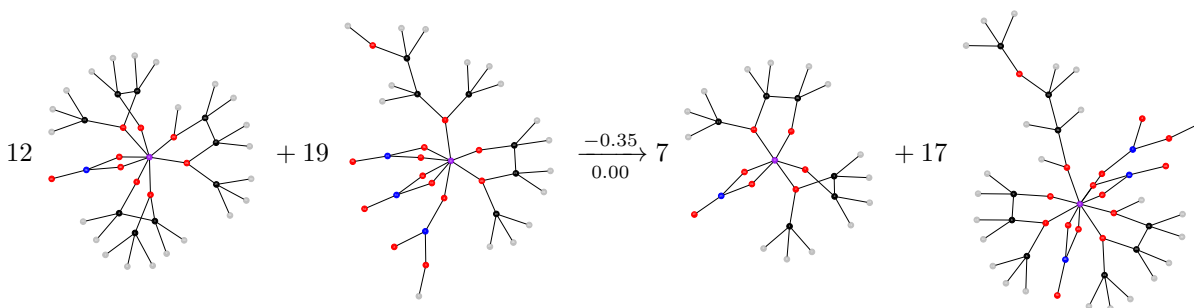
product bonds broken:

[(0, 0), (0, 26)]

[(0, 0), (0, 29)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 26)]

[(0, 0), (0, 29)]

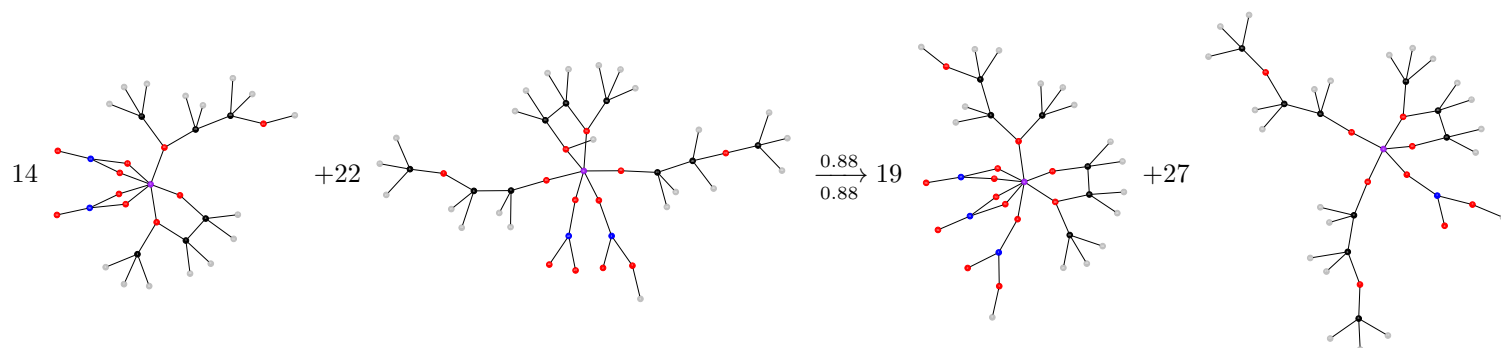
product bonds broken:

[(1, 0), (1, 22)]

[(1, 0), (1, 35)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(1, 0), (1, 4)]

[(1, 34), (1, 46)]

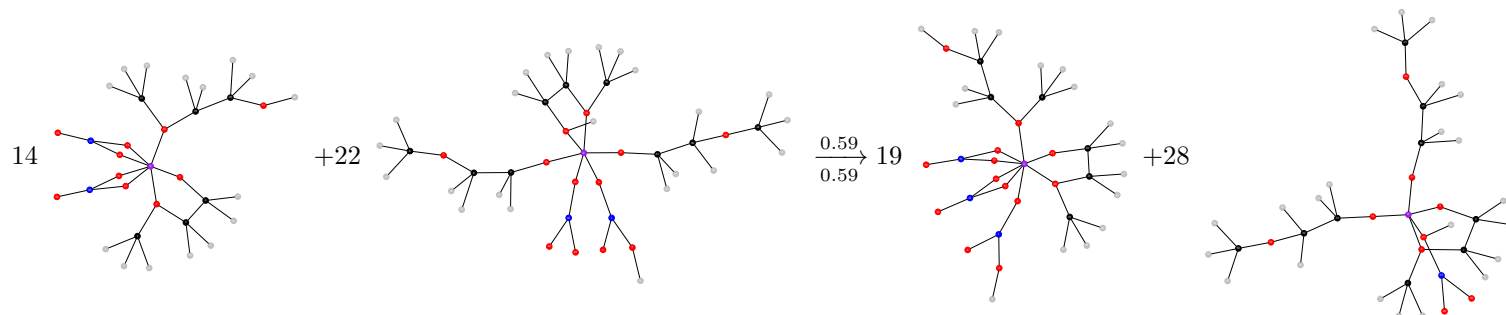
product bonds broken:

[(0, 0), (0, 4)]

[(1, 3), (1, 5)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(1, 0), (1, 4)]

[(1, 34), (1, 46)]

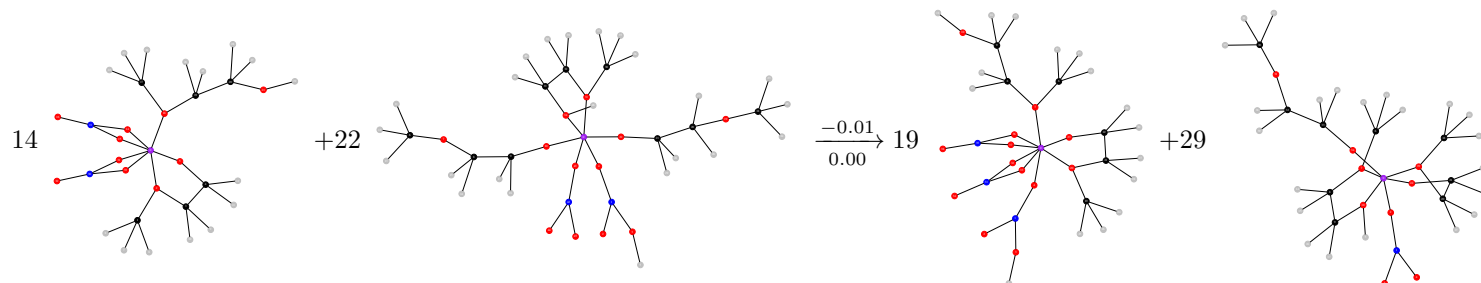
product bonds broken:

[(0, 0), (0, 4)]

[(1, 27), (1, 29)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

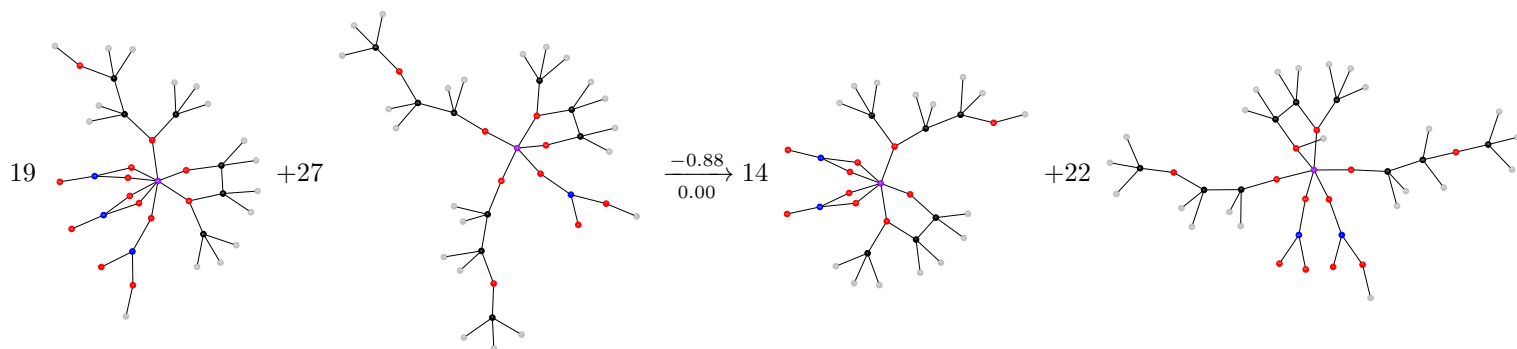
[(1, 0), (1, 4)]

product bonds broken:

[(0, 0), (0, 4)]

[(1, 0), (1, 19)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 4)]

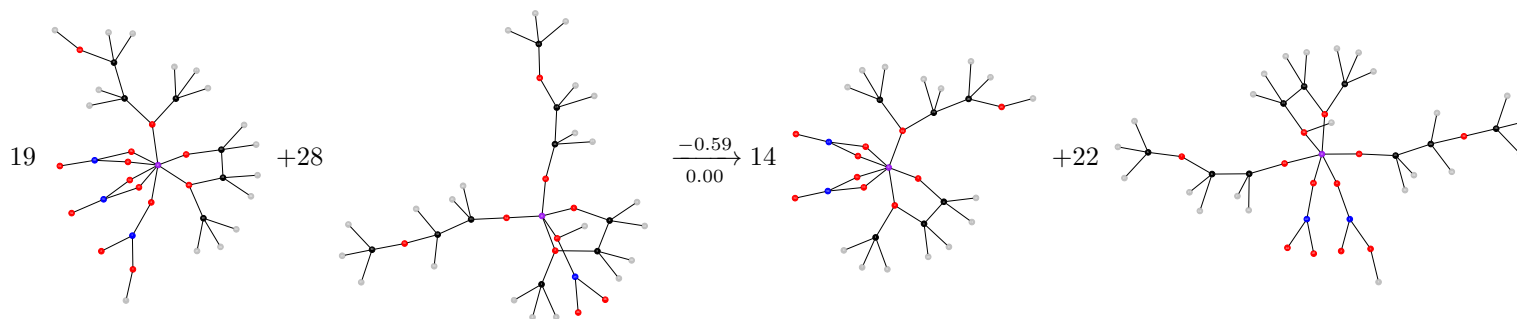
[(1, 3), (1, 5)]

product bonds broken:

[(1, 0), (1, 4)]

[(1, 34), (1, 46)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 4)]

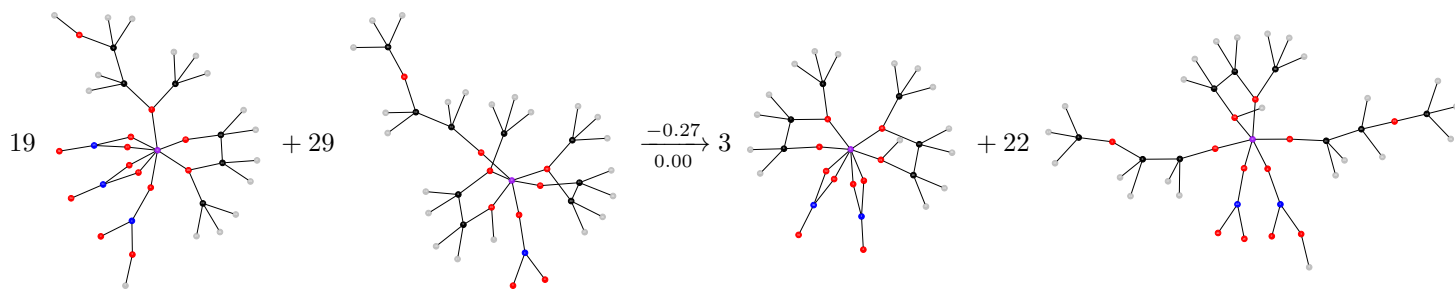
[(1, 27), (1, 29)]

product bonds broken:

[(1, 0), (1, 4)]

[(1, 34), (1, 46)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 4)]

[(1, 0), (1, 19)]

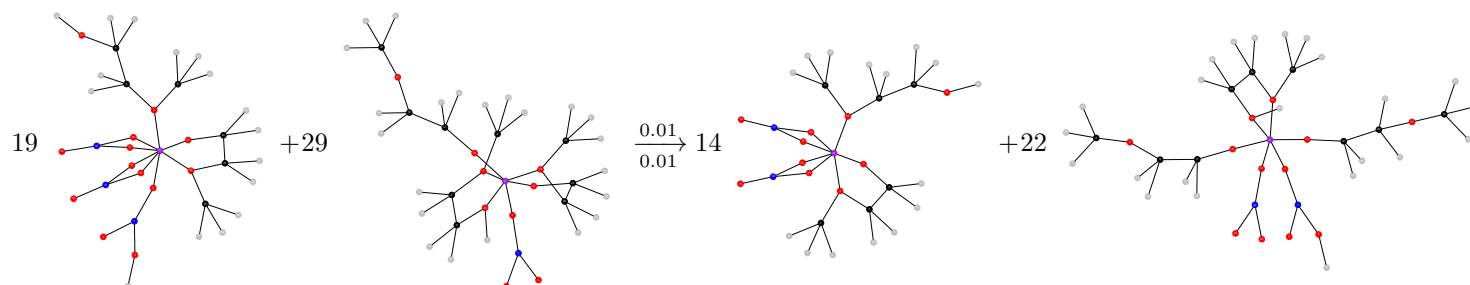
product bonds broken:

[(0, 0), (0, 21)]

[(1, 0), (1, 4)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 4)]

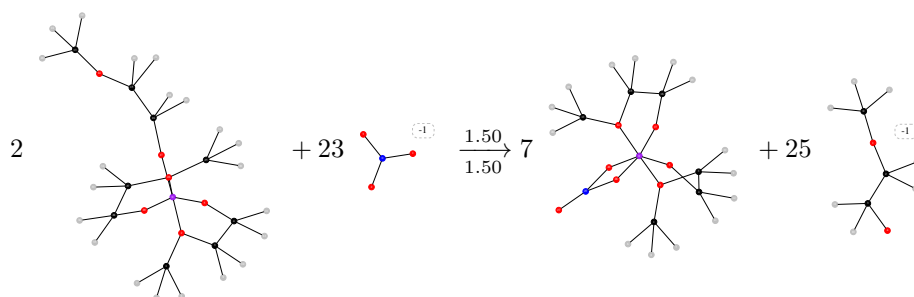
[(1, 0), (1, 19)]

product bonds broken:

[(1, 0), (1, 4)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 17)]

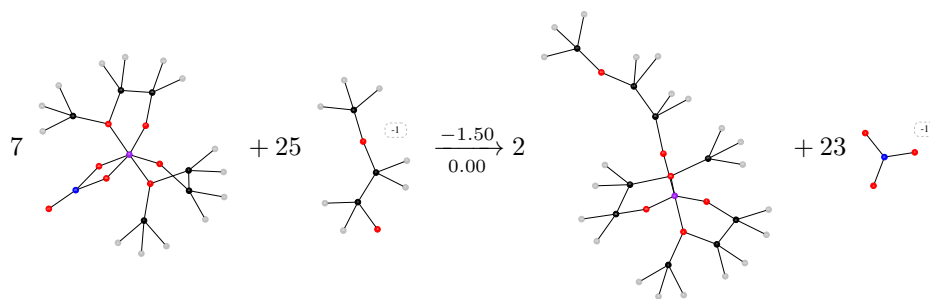
product bonds broken:

[(0, 0), (0, 26)]

[(0, 0), (0, 28)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 26)]

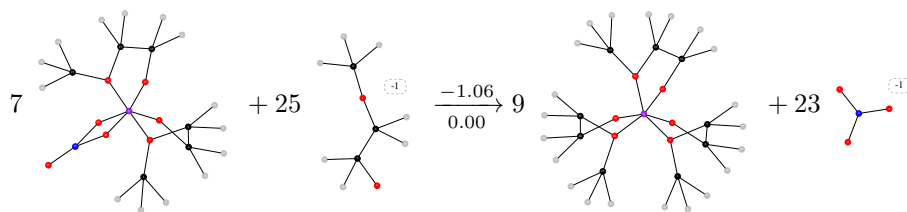
[(0, 0), (0, 28)]

product bonds broken:

[(0, 0), (0, 17)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 26)]

[(0, 0), (0, 28)]

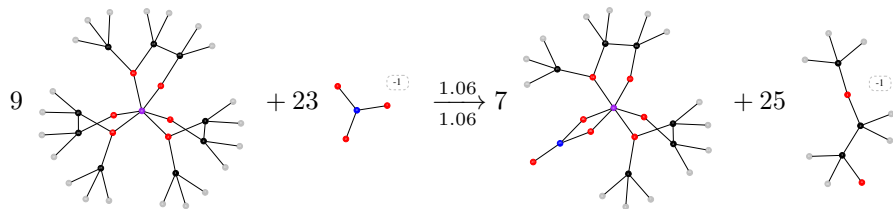
product bonds broken:

[(0, 0), (0, 17)]

[(0, 0), (0, 14)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 17)]

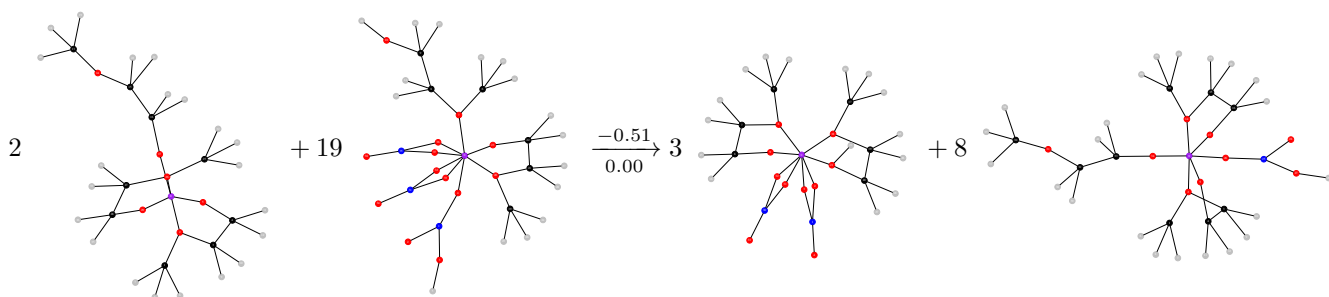
[(0, 0), (0, 14)]

product bonds broken:

[(0, 0), (0, 26)]

[(0, 0), (0, 28)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

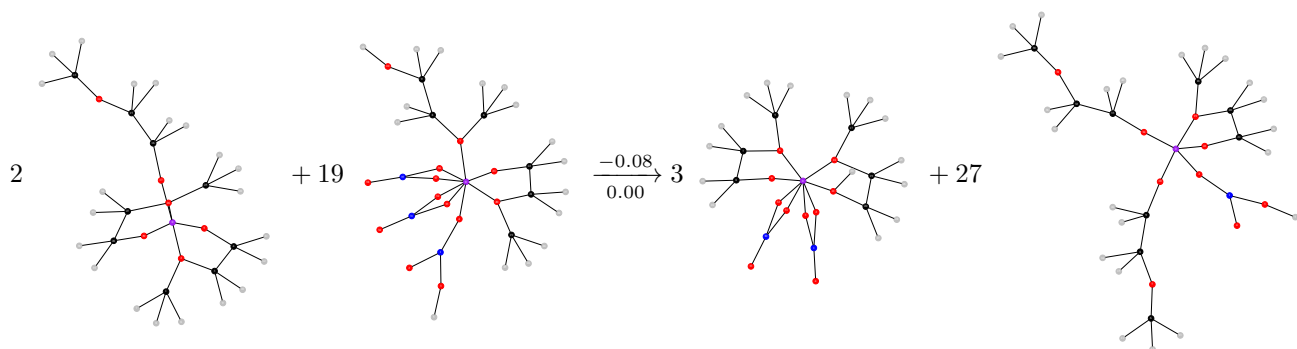
[(1, 0), (1, 4)]

product bonds broken:

[(0, 0), (0, 21)]

[(1, 0), (1, 26)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 2)]

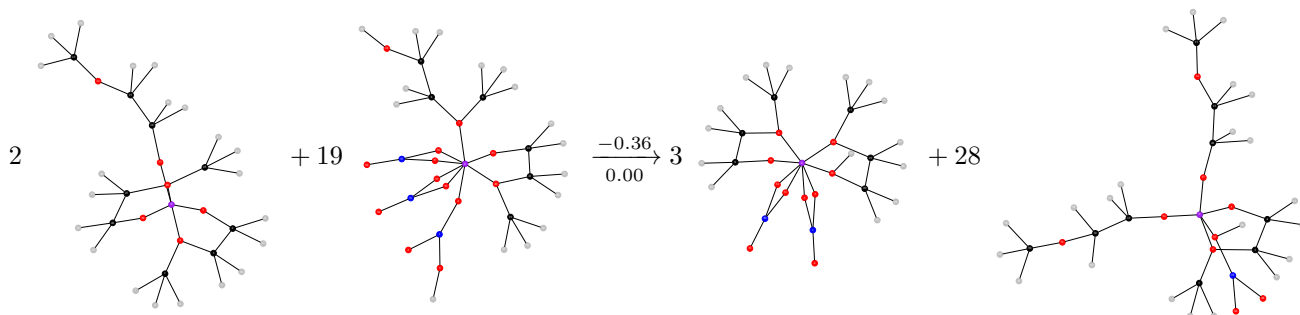
[(1, 0), (1, 4)]

product bonds broken:

[(0, 0), (0, 21)]

[(1, 0), (1, 2)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 2)]

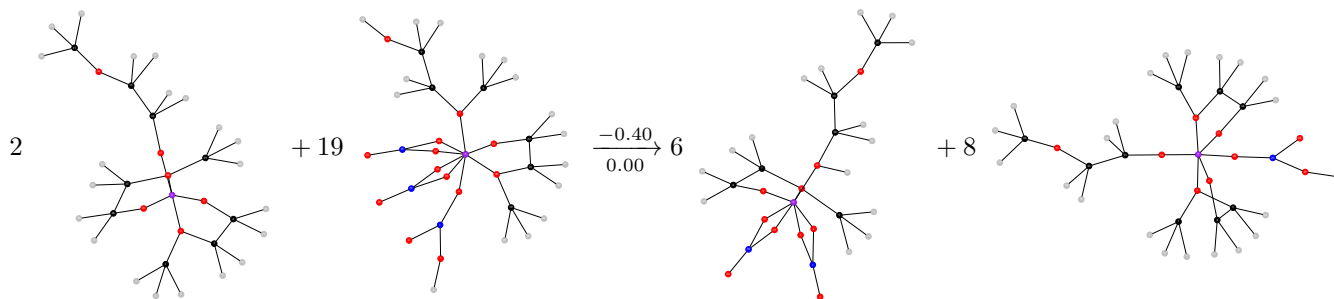
[(1, 0), (1, 4)]

product bonds broken:

[(0, 0), (0, 21)]

[(1, 0), (1, 27)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(1, 0), (1, 4)]

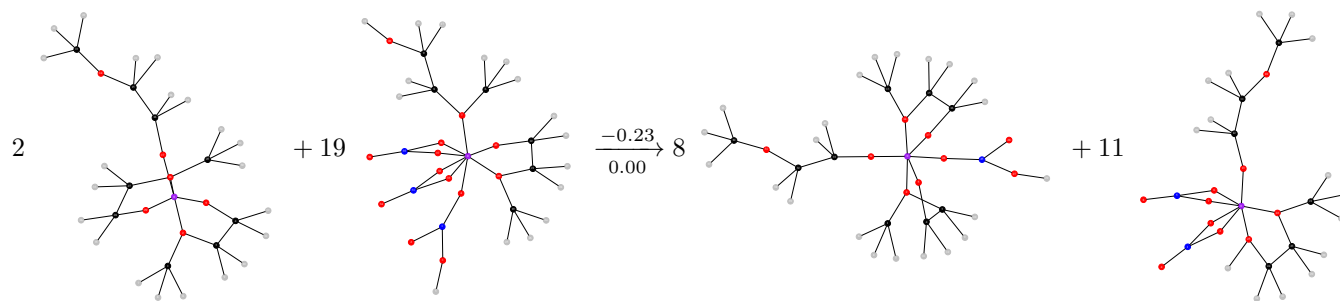
[(1, 0), (1, 7)]

product bonds broken:

[(0, 0), (0, 21)]

[(1, 0), (1, 26)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(1, 0), (1, 4)]

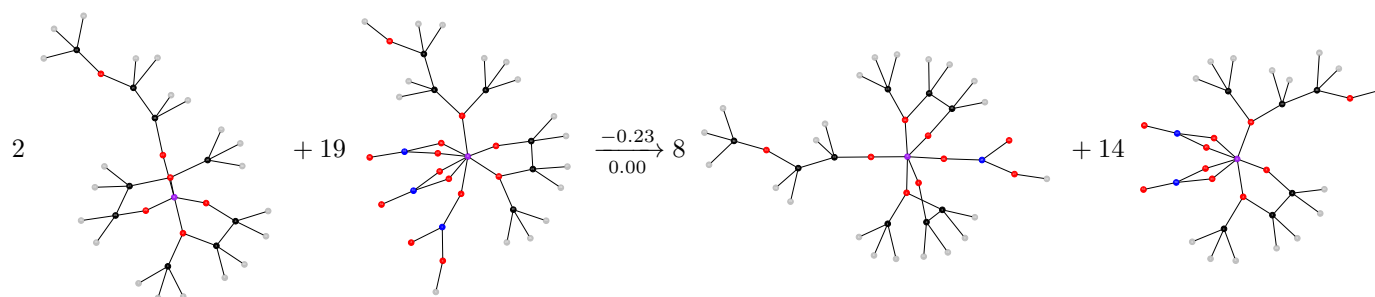
[(1, 0), (1, 20)]

product bonds broken:

[(0, 0), (0, 26)]

[(1, 0), (1, 25)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(1, 0), (1, 4)]

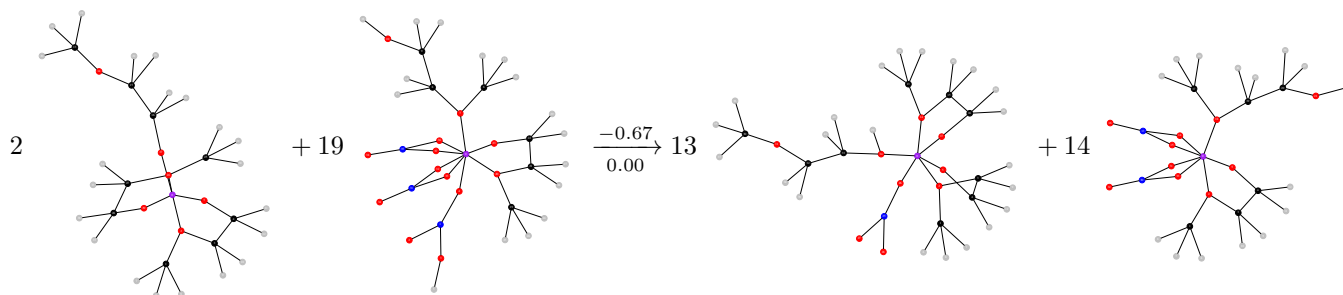
[(1, 3), (1, 5)]

product bonds broken:

[(0, 0), (0, 26)]

[(0, 27), (0, 29)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(1, 0), (1, 4)]

[(1, 3), (1, 5)]

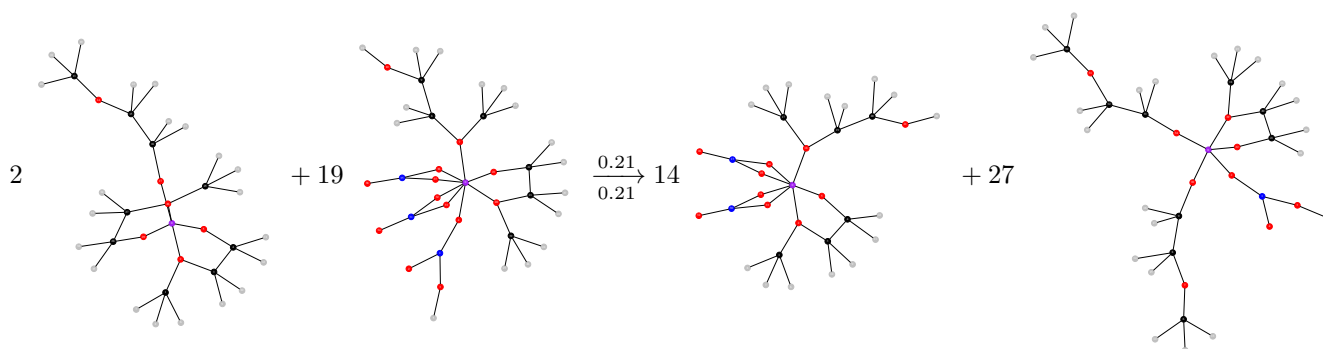
product bonds broken:

[(0, 0), (0, 26)]

[(0, 29), (0, 34)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 2)]

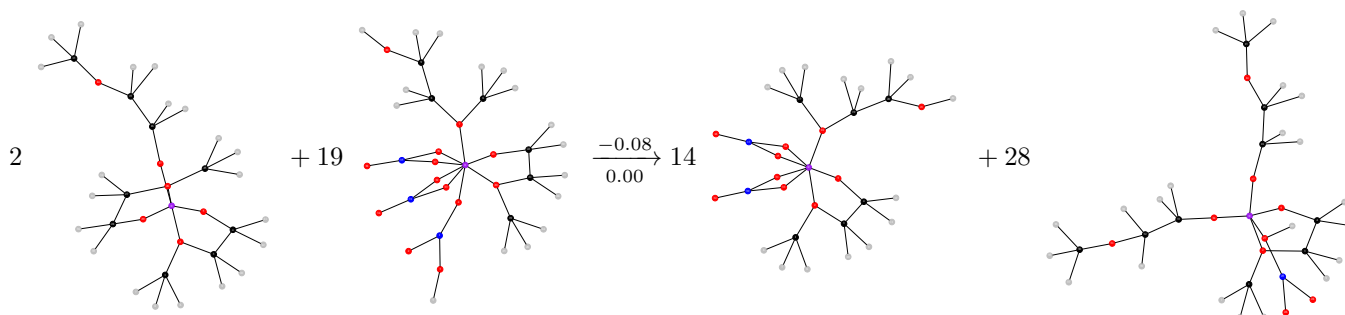
[(1, 0), (1, 4)]

product bonds broken:

[(1, 0), (1, 2)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 2)]

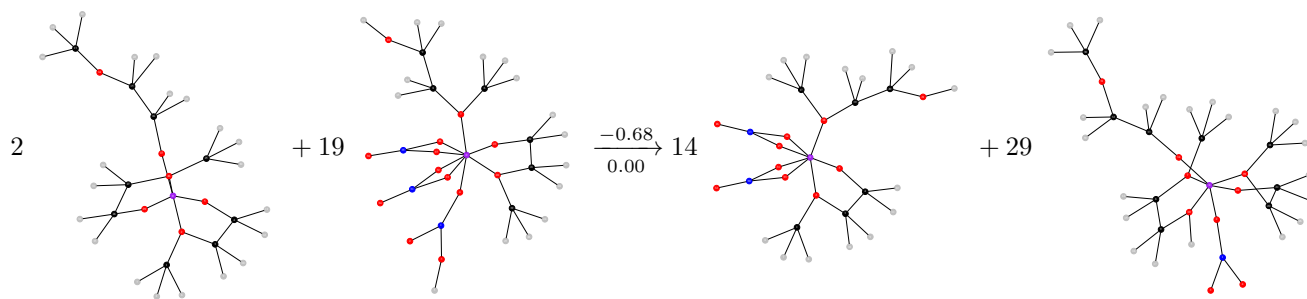
[(1, 0), (1, 4)]

product bonds broken:

[(1, 0), (1, 27)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(1, 0), (1, 4)]

[(1, 3), (1, 5)]

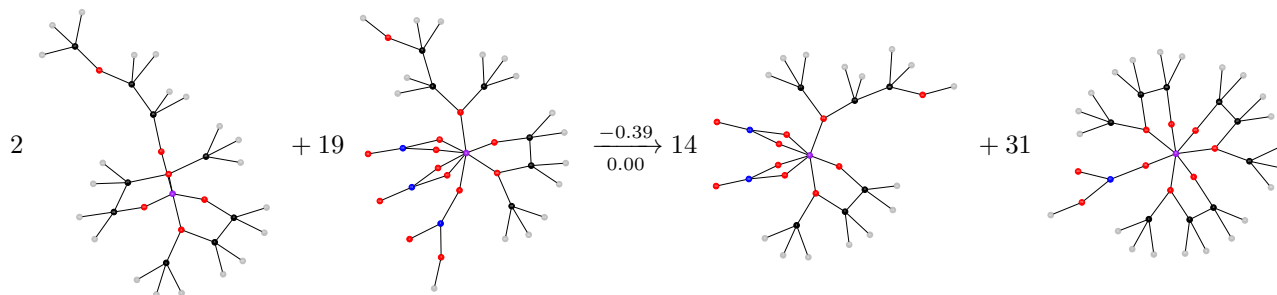
product bonds broken:

[(1, 0), (1, 2)]

[(1, 5), (1, 10)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

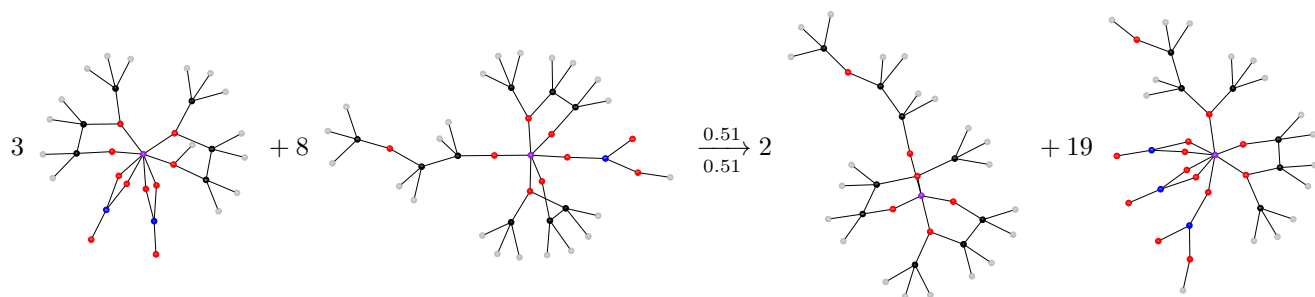
[(1, 0), (1, 4)]

product bonds broken:

[(1, 0), (1, 2)]

[(1, 0), (1, 38)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

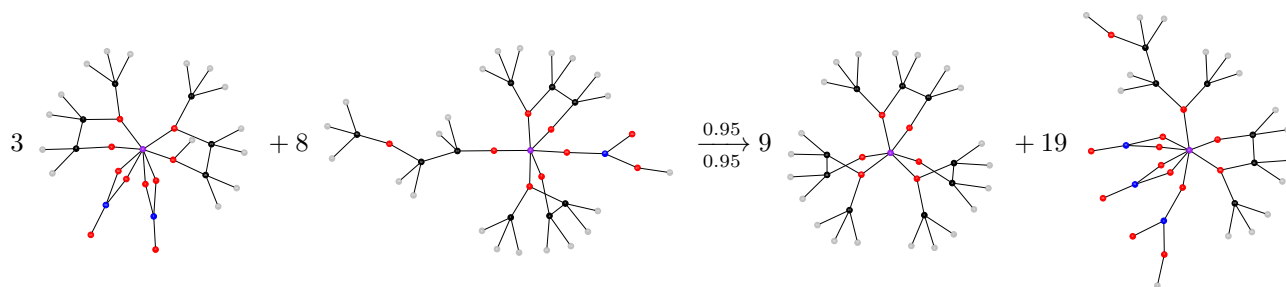
[(0, 0), (0, 21)]

[(1, 0), (1, 26)]

product bonds broken:

[(1, 0), (1, 4)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 21)]

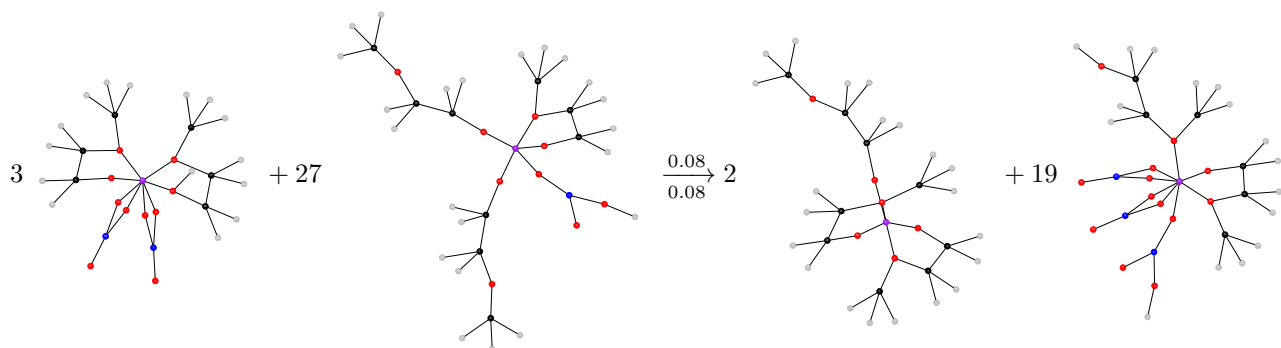
[(1, 0), (1, 26)]

product bonds broken:

[(0, 0), (0, 2)]

[(1, 0), (1, 4)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 21)]

[(1, 0), (1, 2)]

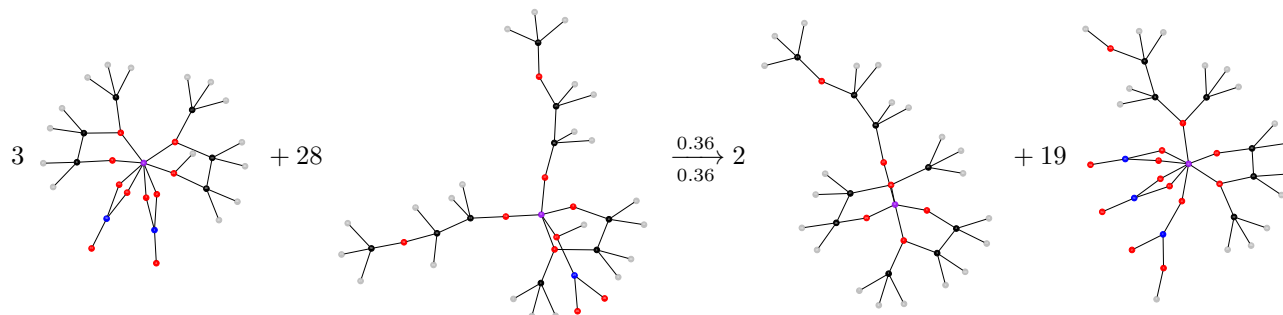
product bonds broken:

[(0, 0), (0, 2)]

[(1, 0), (1, 4)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 21)]

[(1, 0), (1, 27)]

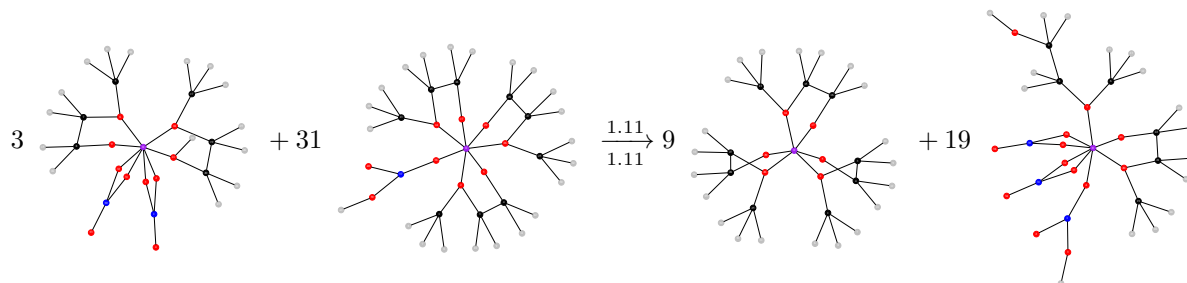
product bonds broken:

[(0, 0), (0, 2)]

[(1, 0), (1, 4)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

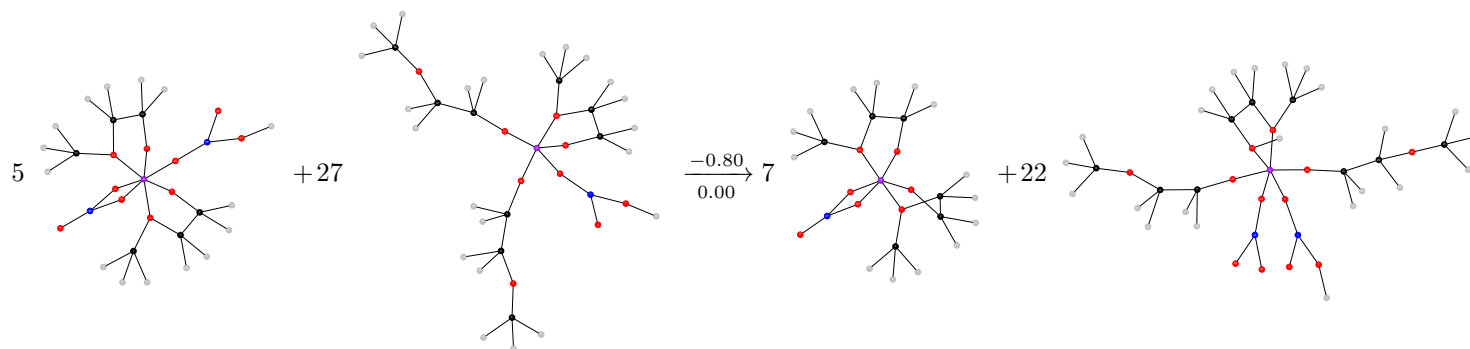
[(0, 0), (0, 21)]

[(1, 0), (1, 38)]

product bonds broken:

[(1, 0), (1, 4)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 26)]

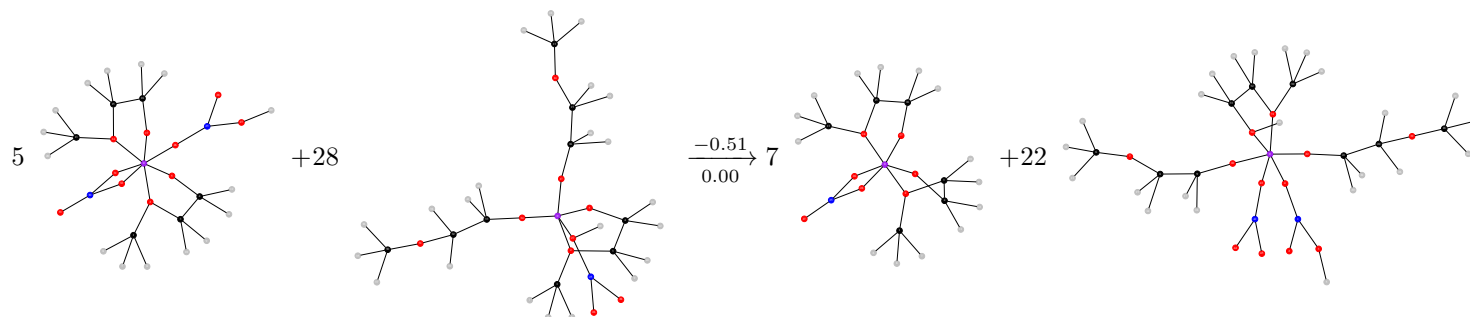
[(1, 3), (1, 5)]

product bonds broken:

[(1, 0), (1, 4)]

[(1, 34), (1, 46)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 26)]

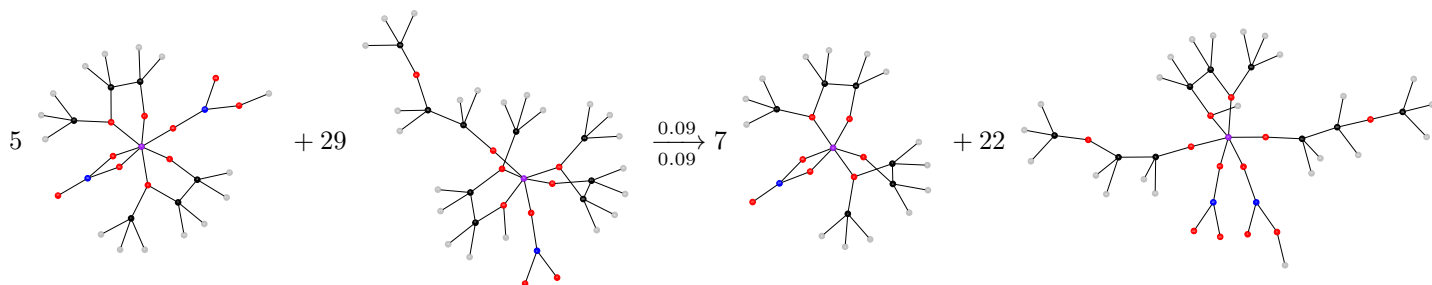
[(1, 27), (1, 29)]

product bonds broken:

[(1, 0), (1, 4)]

[(1, 34), (1, 46)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

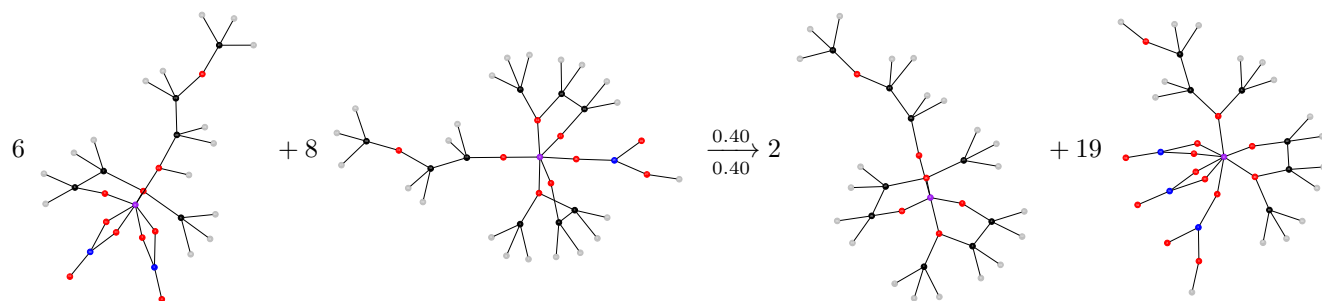
[(0, 0), (0, 26)]

[(1, 0), (1, 19)]

product bonds broken:

[(1, 0), (1, 4)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 21)]

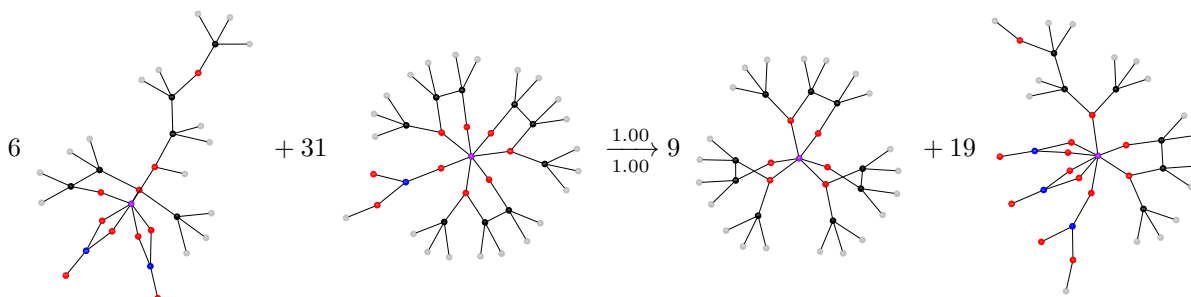
[(1, 0), (1, 26)]

product bonds broken:

[(1, 0), (1, 4)]

[(1, 0), (1, 7)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 21)]

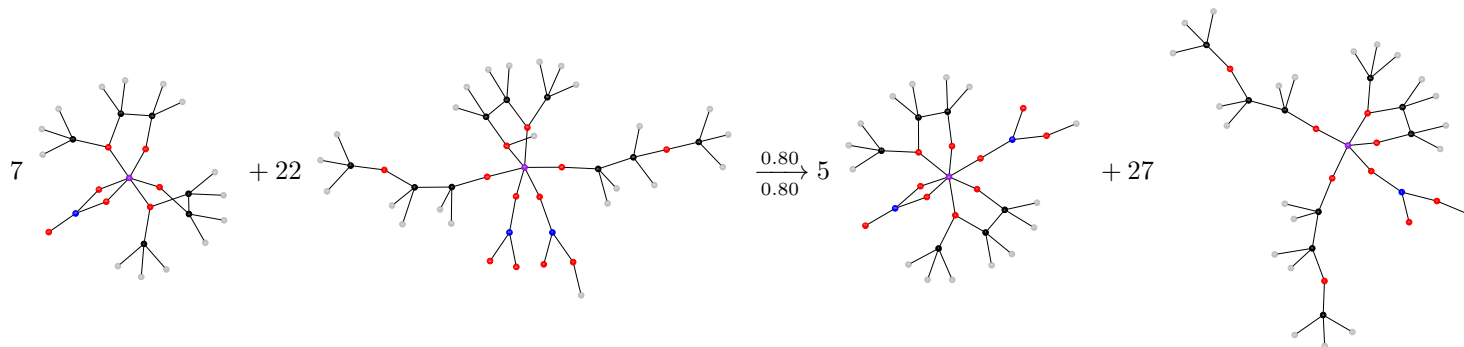
[(1, 0), (1, 38)]

product bonds broken:

[(1, 0), (1, 4)]

[(1, 0), (1, 7)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(1, 0), (1, 4)]

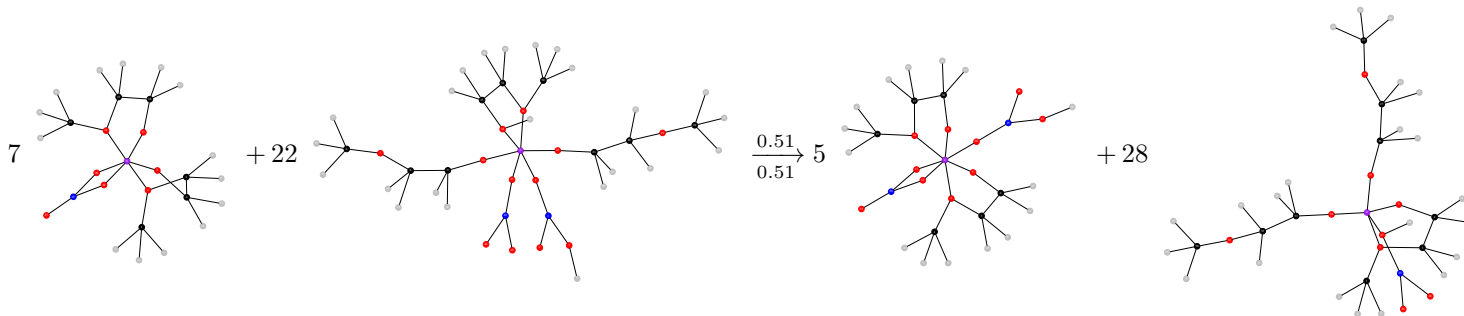
[(1, 34), (1, 46)]

product bonds broken:

[(0, 0), (0, 26)]

[(1, 3), (1, 5)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(1, 0), (1, 4)]

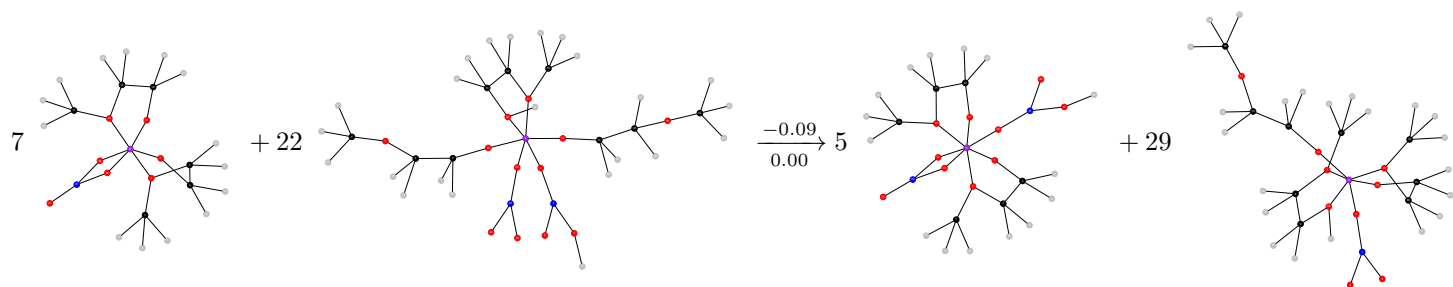
[(1, 34), (1, 46)]

product bonds broken:

[(0, 0), (0, 26)]

[(1, 27), (1, 29)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

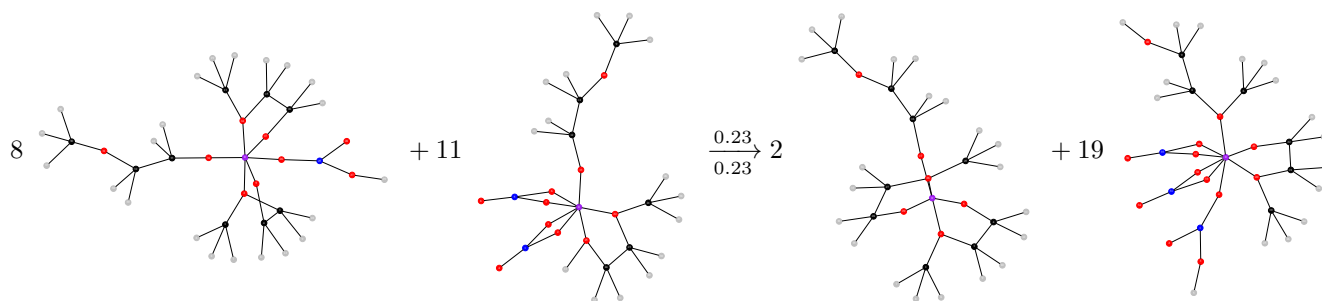
[(1, 0), (1, 4)]

product bonds broken:

[(0, 0), (0, 26)]

[(1, 0), (1, 19)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 26)]

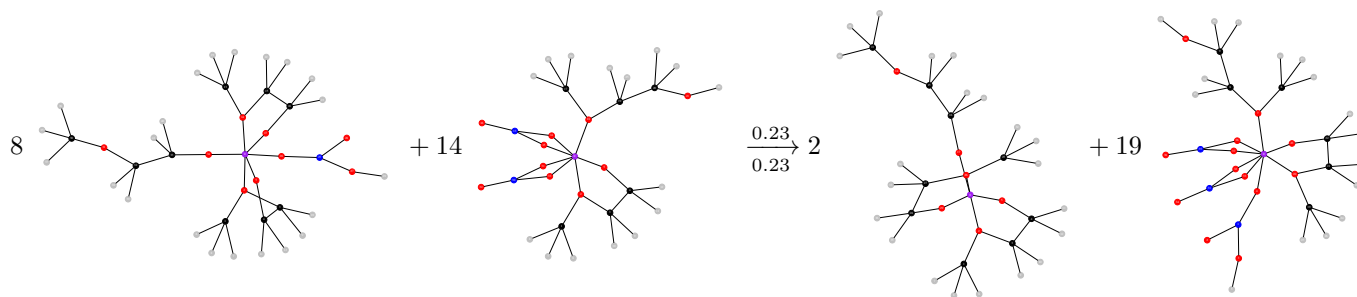
[(1, 0), (1, 25)]

product bonds broken:

[(1, 0), (1, 4)]

[(1, 0), (1, 20)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 26)]

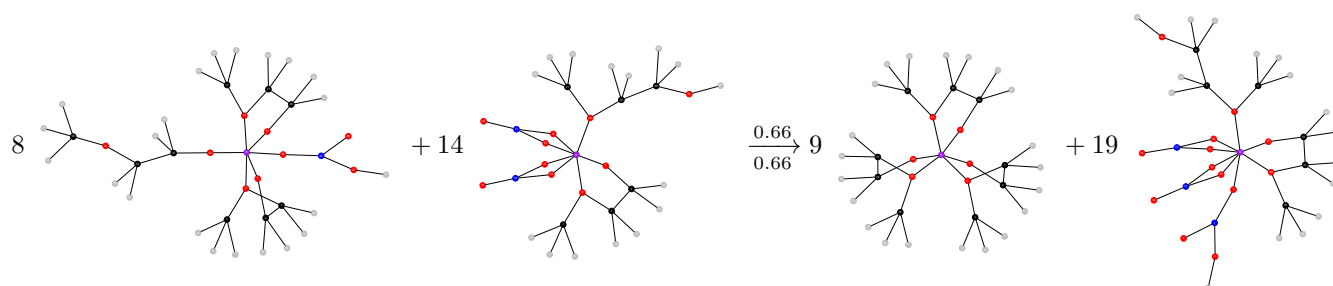
[(1, 1), (1, 8)]

product bonds broken:

[(1, 0), (1, 4)]

[(1, 19), (1, 25)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

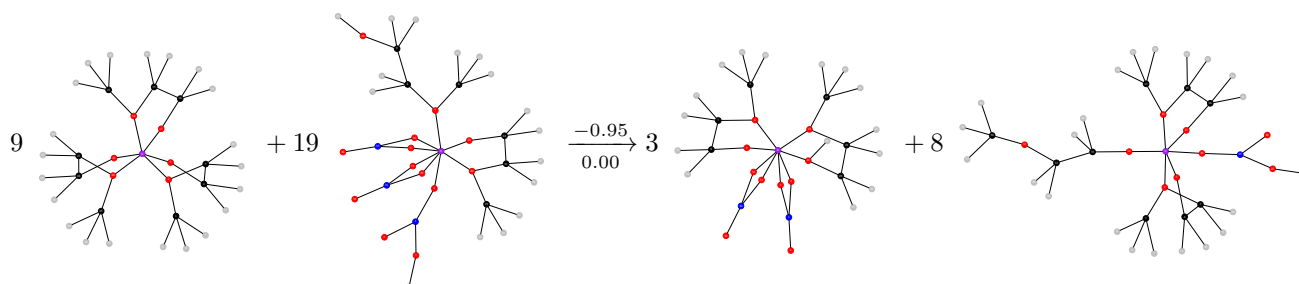
[(0, 0), (0, 26)]

product bonds broken:

[(0, 0), (0, 2)]

[(1, 0), (1, 4)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 2)]

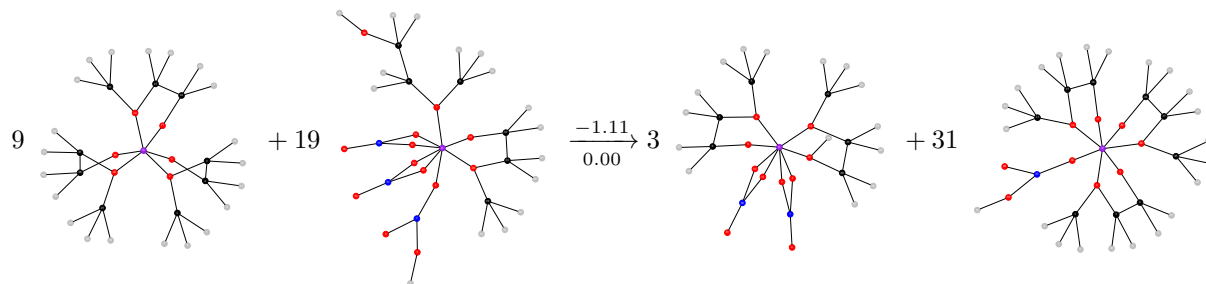
[(1, 0), (1, 4)]

product bonds broken:

[(0, 0), (0, 21)]

[(1, 0), (1, 26)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

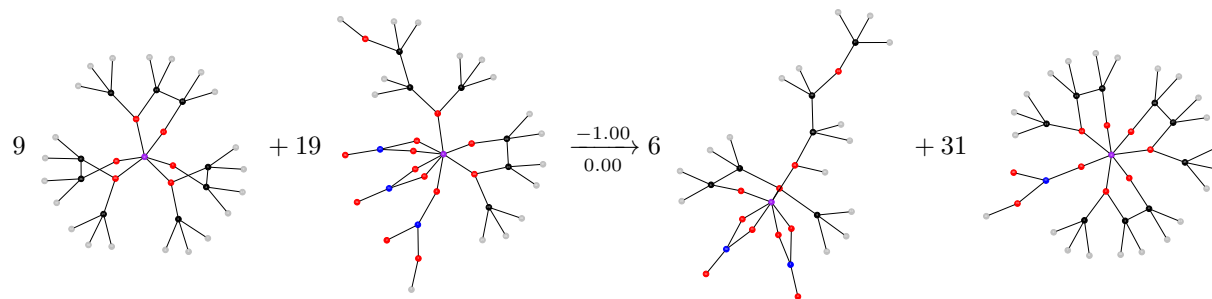
[(1, 0), (1, 4)]

product bonds broken:

[(0, 0), (0, 21)]

[(1, 0), (1, 38)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(1, 0), (1, 4)]

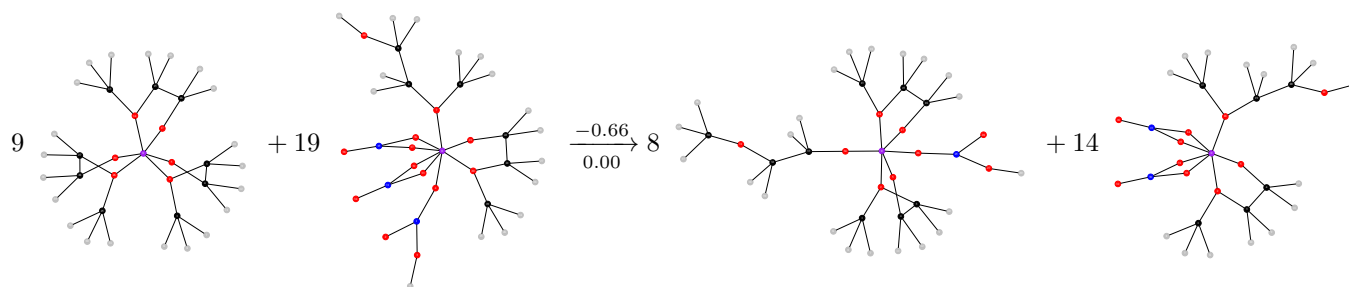
[(1, 0), (1, 7)]

product bonds broken:

[(0, 0), (0, 21)]

[(1, 0), (1, 38)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

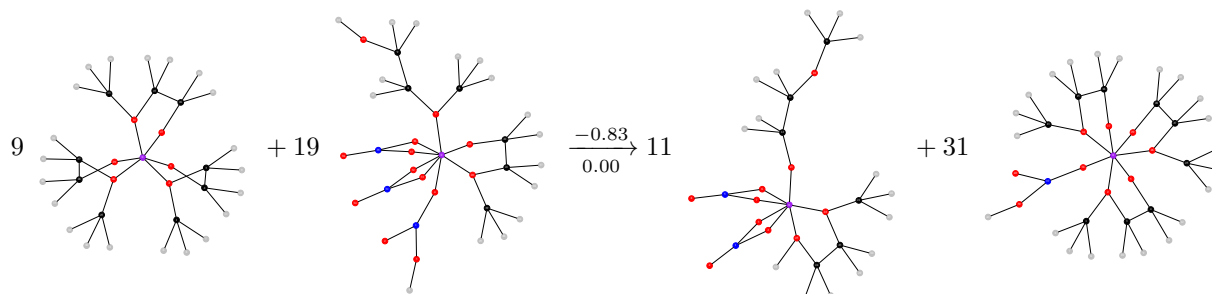
[(0, 0), (0, 2)]

[(1, 0), (1, 4)]

product bonds broken:

[(0, 0), (0, 26)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(1, 0), (1, 4)]

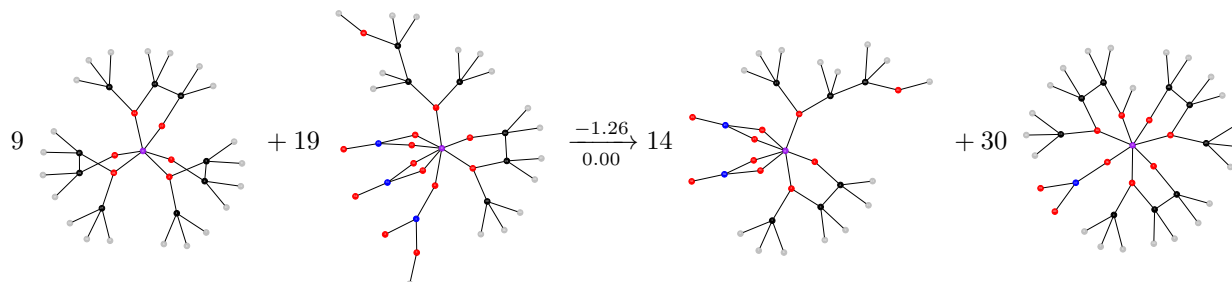
[(1, 0), (1, 20)]

product bonds broken:

[(0, 0), (0, 25)]

[(1, 0), (1, 38)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(1, 0), (1, 4)]

[(1, 3), (1, 5)]

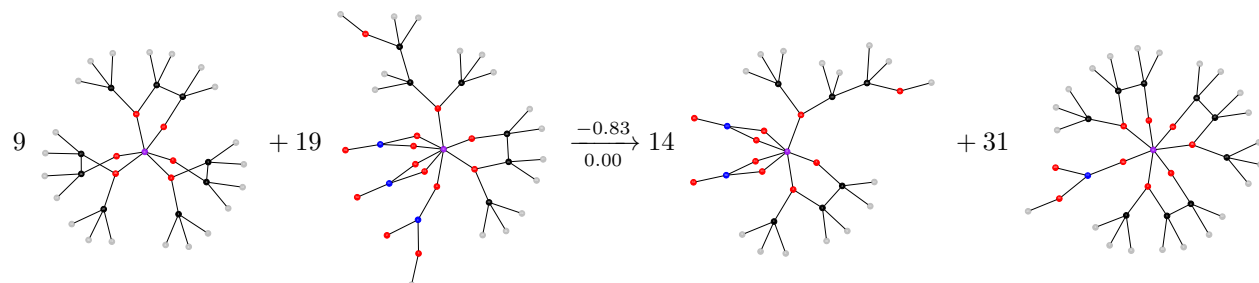
product bonds broken:

[(1, 0), (1, 38)]

[(1, 17), (1, 41)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(1, 0), (1, 4)]

[(1, 3), (1, 5)]

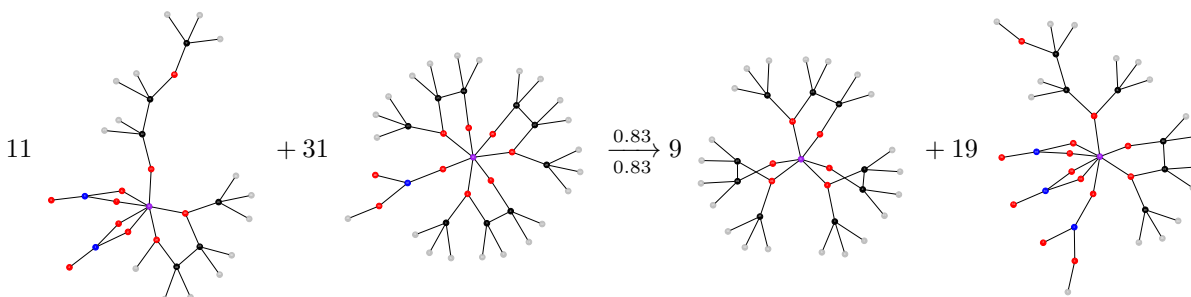
product bonds broken:

[(1, 0), (1, 38)]

[(1, 39), (1, 41)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 25)]

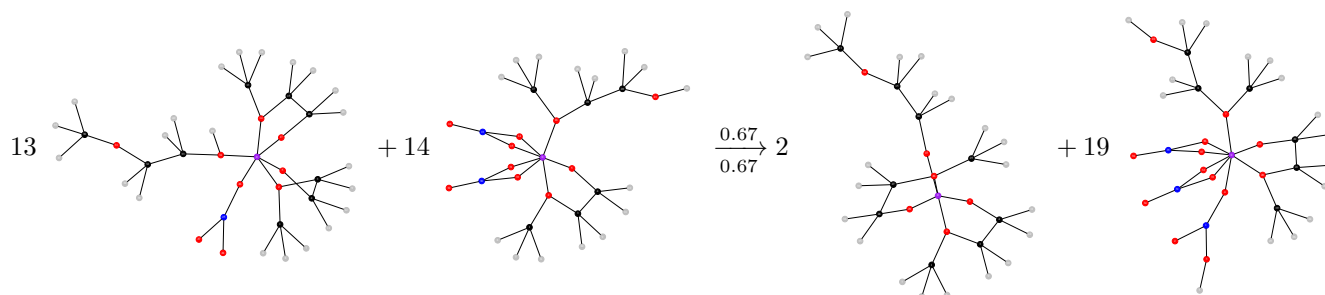
[(1, 0), (1, 38)]

product bonds broken:

[(1, 0), (1, 4)]

[(1, 0), (1, 20)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 26)]

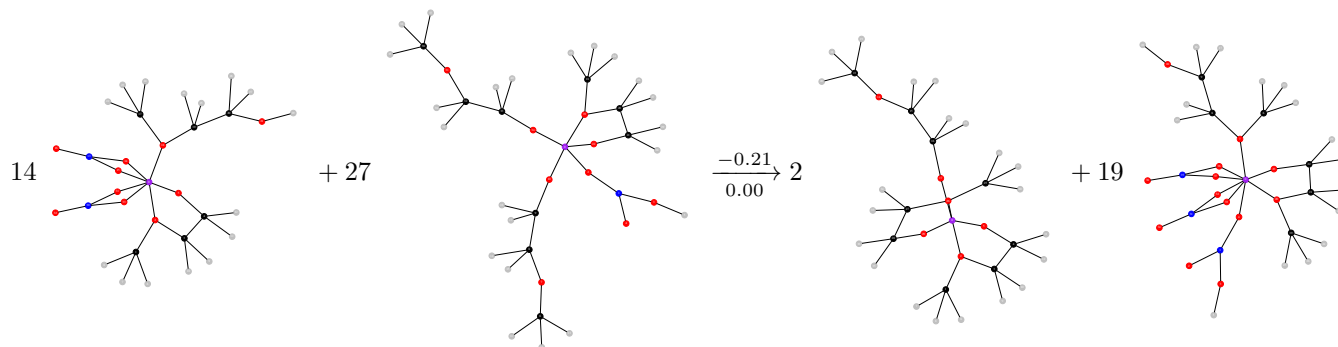
[(0, 29), (0, 34)]

product bonds broken:

[(1, 0), (1, 4)]

[(1, 3), (1, 5)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

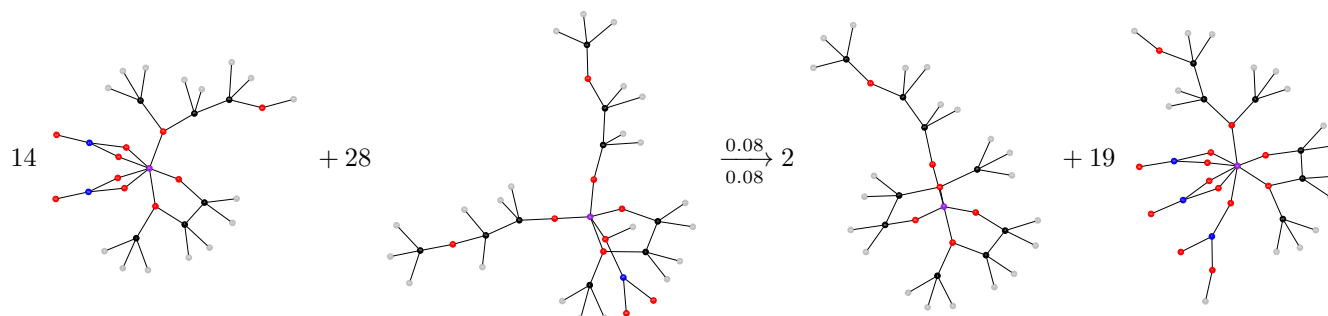
[(1, 0), (1, 2)]

product bonds broken:

[(0, 0), (0, 2)]

[(1, 0), (1, 4)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

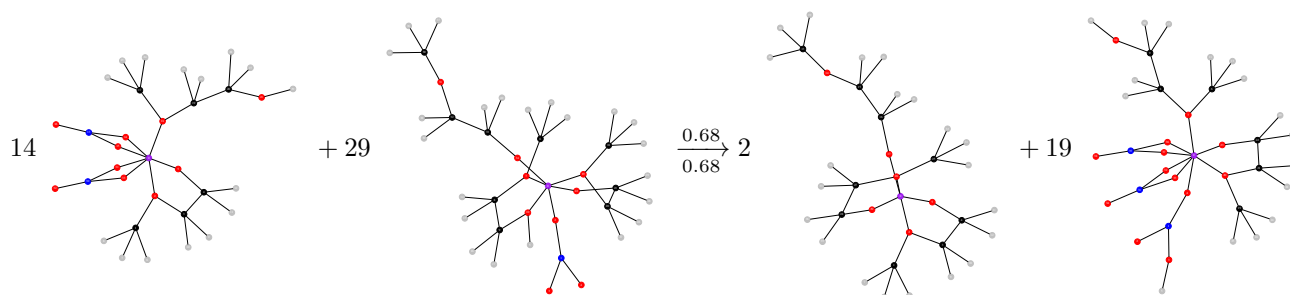
[(1, 0), (1, 27)]

product bonds broken:

[(0, 0), (0, 2)]

[(1, 0), (1, 4)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(1, 0), (1, 2)]

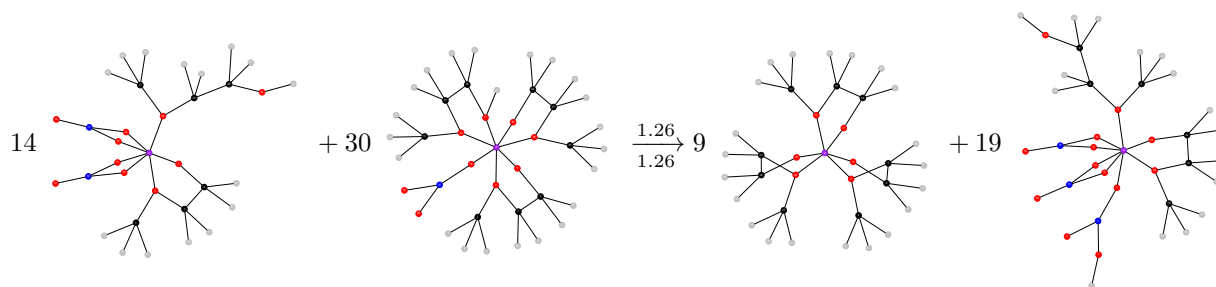
[(1, 5), (1, 10)]

product bonds broken:

[(1, 0), (1, 4)]

[(1, 3), (1, 5)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(1, 0), (1, 38)]

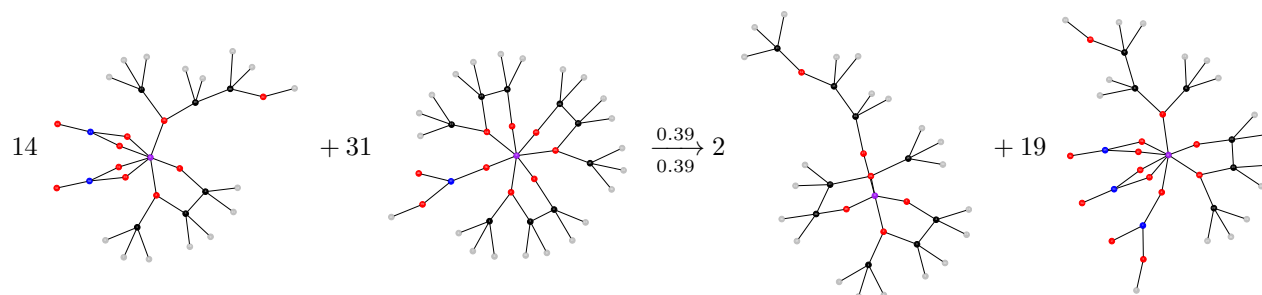
[(1, 17), (1, 41)]

product bonds broken:

[(1, 0), (1, 4)]

[(1, 3), (1, 5)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

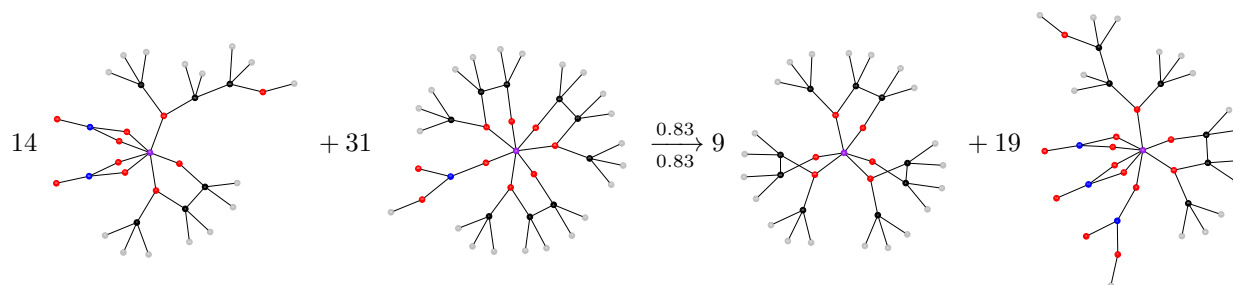
[(1, 0), (1, 2)]

[(1, 0), (1, 38)]

product bonds broken:

[(1, 0), (1, 4)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(1, 0), (1, 38)]

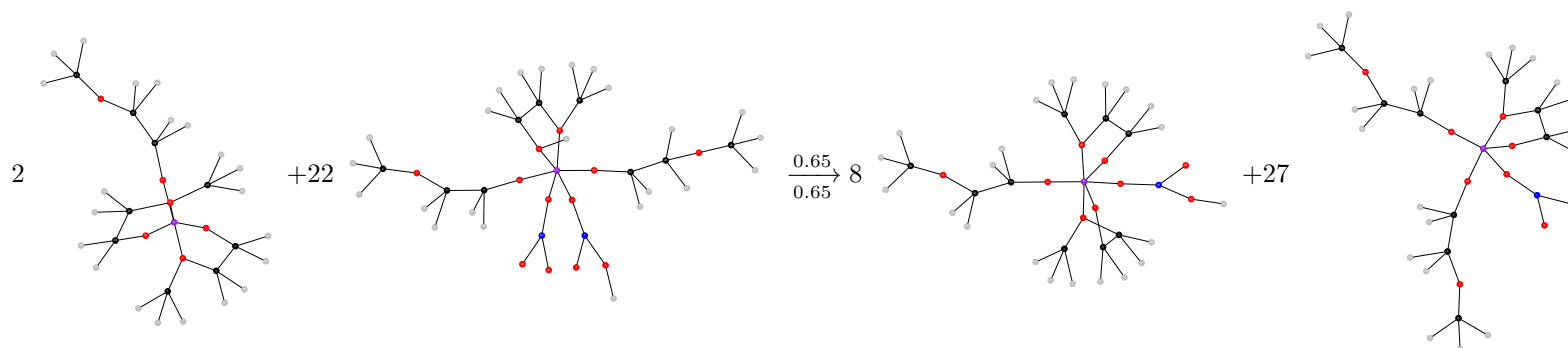
[(1, 1), (1, 7)]

product bonds broken:

[(0, 1), (0, 8)]

[(1, 0), (1, 4)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(1, 0), (1, 4)]

[(1, 34), (1, 46)]

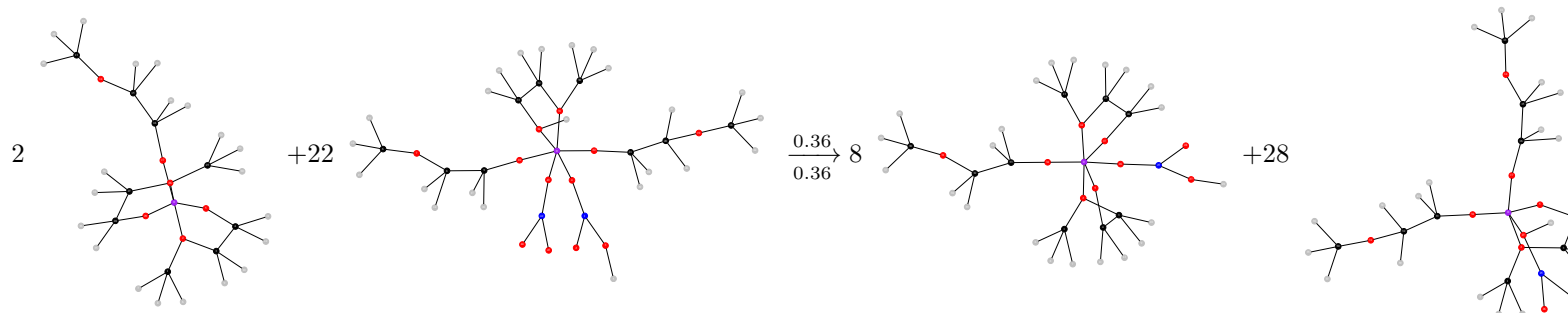
product bonds broken:

[(0, 0), (0, 26)]

[(1, 3), (1, 5)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(1, 0), (1, 4)]

[(1, 34), (1, 46)]

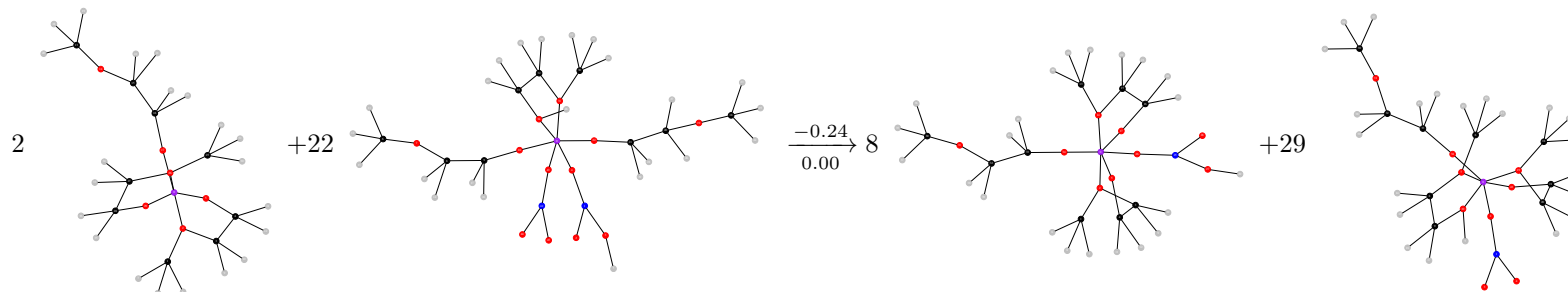
product bonds broken:

[(0, 0), (0, 26)]

[(1, 27), (1, 29)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

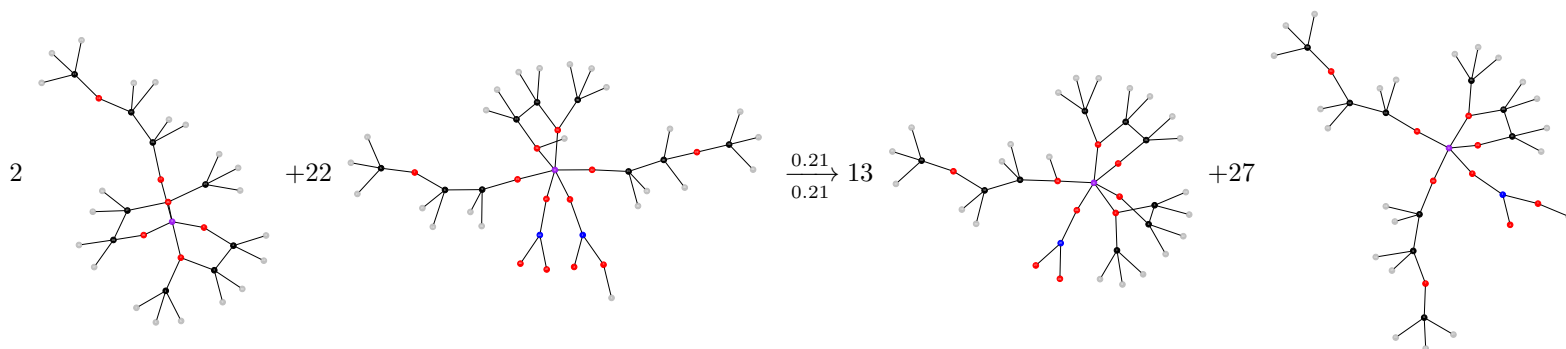
[(1, 0), (1, 4)]

product bonds broken:

[(0, 0), (0, 26)]

[(1, 0), (1, 19)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(1, 0), (1, 43)]

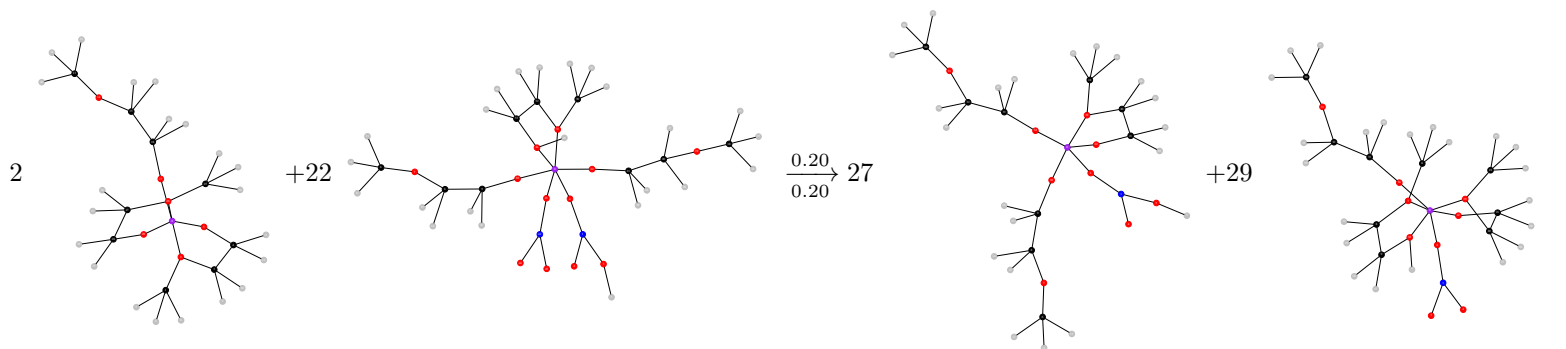
[(1, 34), (1, 46)]

product bonds broken:

[(0, 0), (0, 26)]

[(0, 29), (0, 34)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(1, 0), (1, 43)]

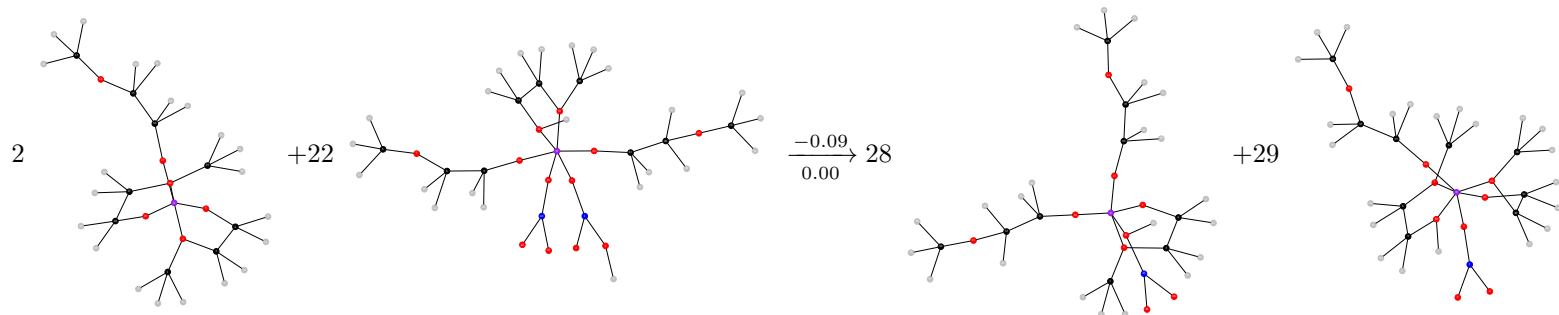
[(1, 34), (1, 46)]

product bonds broken:

[(1, 0), (1, 2)]

[(1, 5), (1, 10)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 2)]

[(1, 0), (1, 4)]

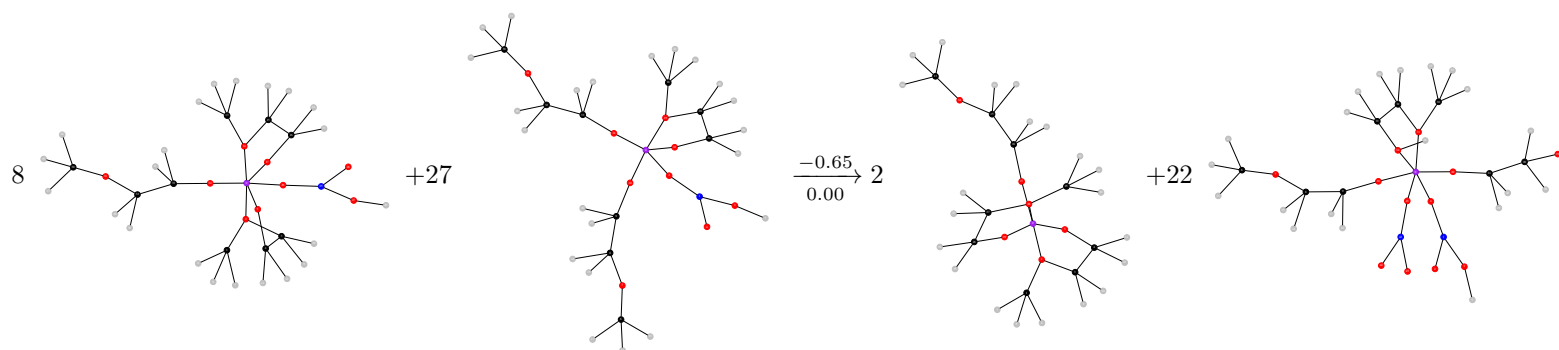
product bonds broken:

[(0, 0), (0, 27)]

[(1, 0), (1, 19)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 26)]

[(1, 3), (1, 5)]

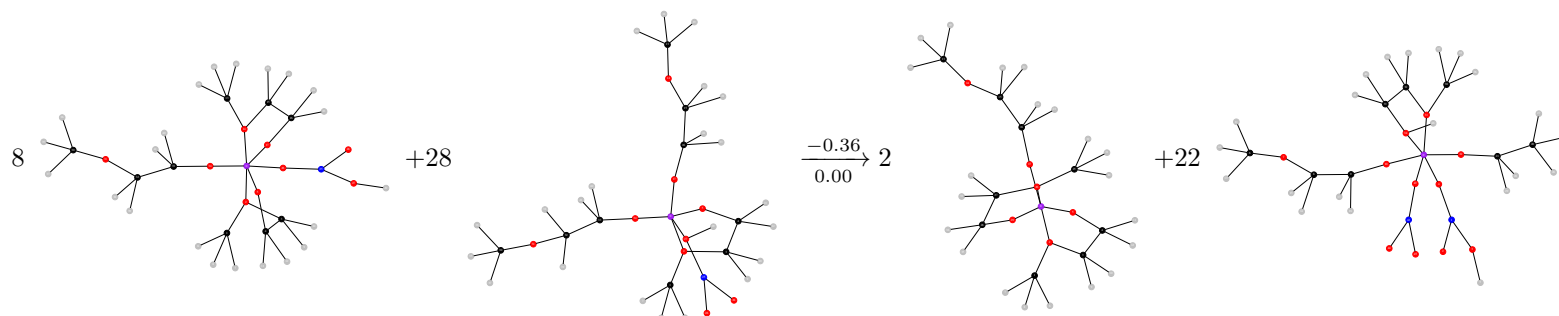
product bonds broken:

[(1, 0), (1, 4)]

[(1, 34), (1, 46)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 26)]

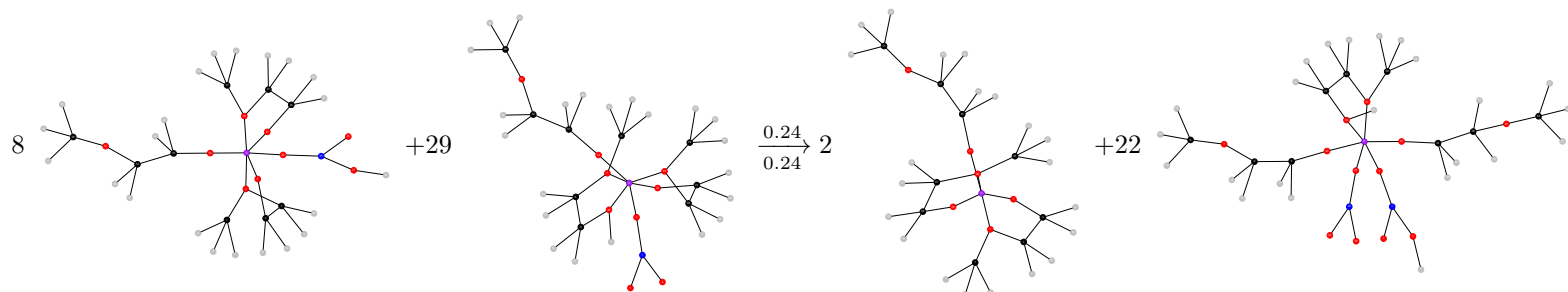
[(1, 27), (1, 29)]

product bonds broken:

[(1, 0), (1, 4)]

[(1, 34), (1, 46)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

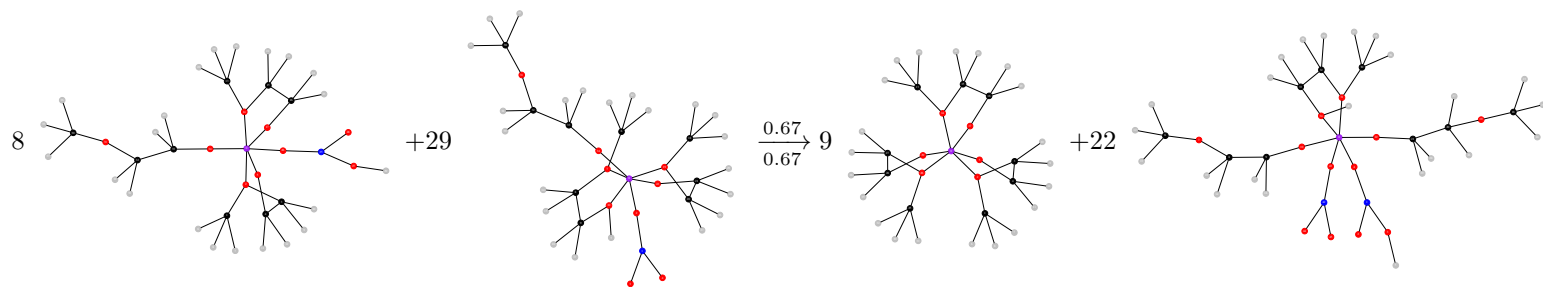
[(0, 0), (0, 26)]

[(1, 0), (1, 19)]

product bonds broken:

[(1, 0), (1, 4)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 26)]

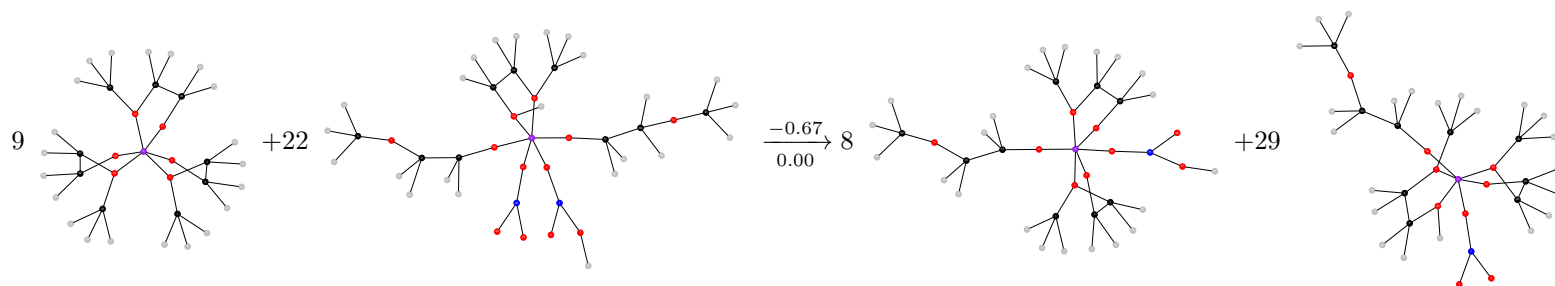
[(1, 0), (1, 19)]

product bonds broken:

[(0, 0), (0, 2)]

[(1, 0), (1, 4)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 2)]

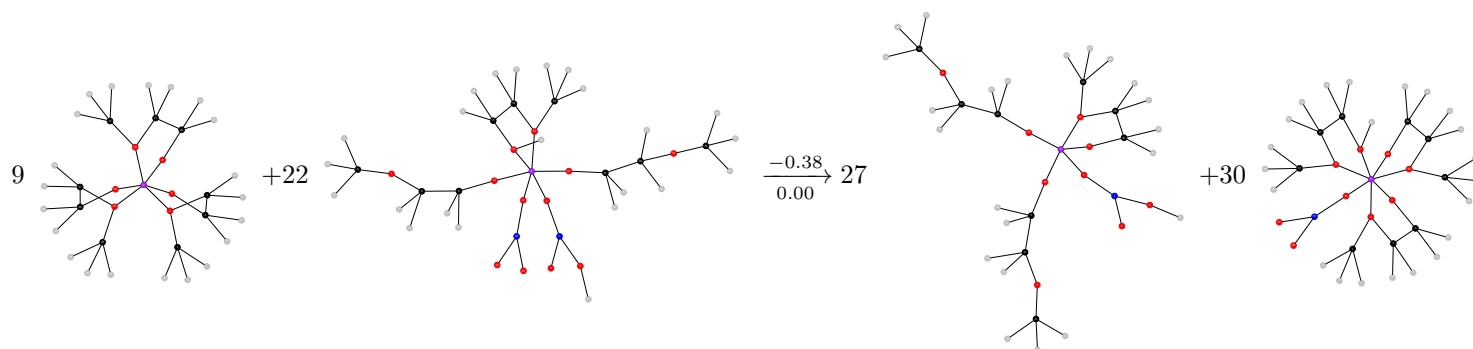
[(1, 0), (1, 4)]

product bonds broken:

[(0, 0), (0, 26)]

[(1, 0), (1, 19)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(1, 0), (1, 43)]

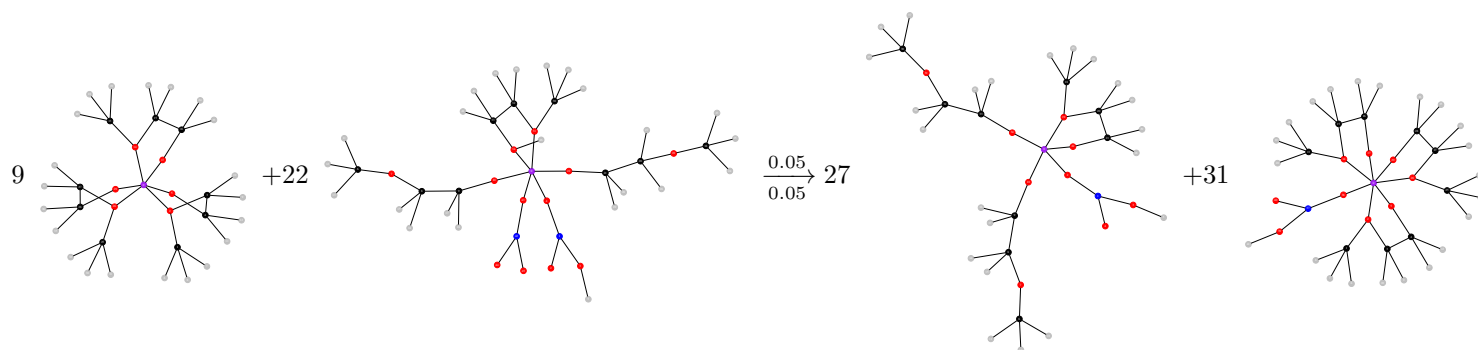
[(1, 34), (1, 46)]

product bonds broken:

[(1, 0), (1, 38)]

[(1, 17), (1, 41)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(1, 0), (1, 4)]

[(1, 34), (1, 46)]

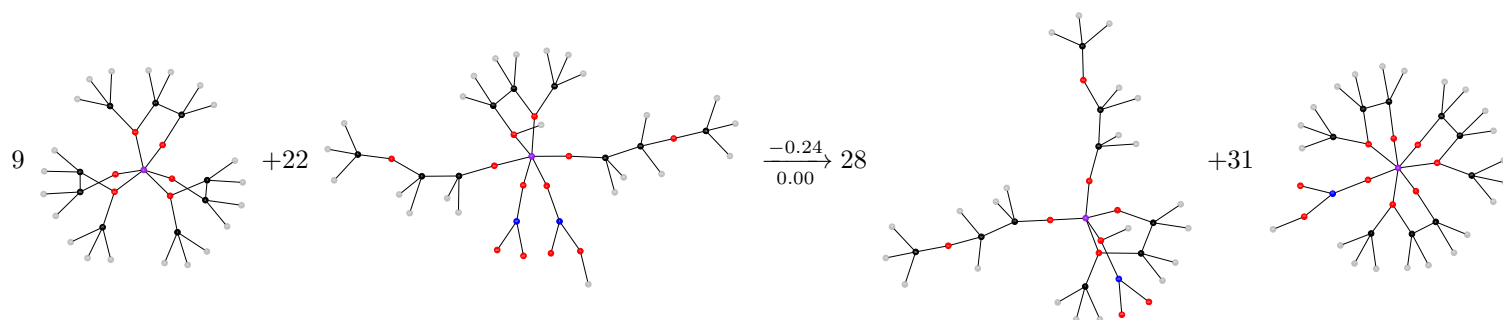
product bonds broken:

[(0, 3), (0, 5)]

[(1, 0), (1, 38)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(1, 0), (1, 4)]

[(1, 34), (1, 46)]

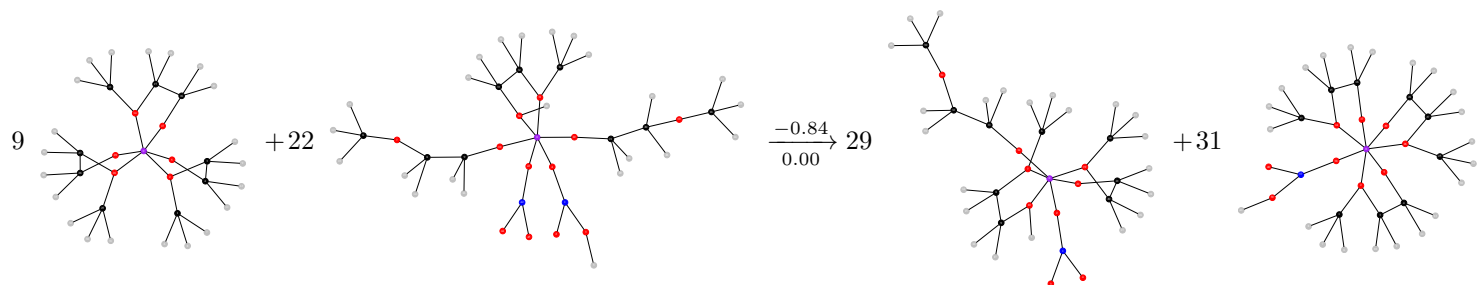
product bonds broken:

[(0, 27), (0, 29)]

[(1, 0), (1, 38)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(1, 0), (1, 4)]

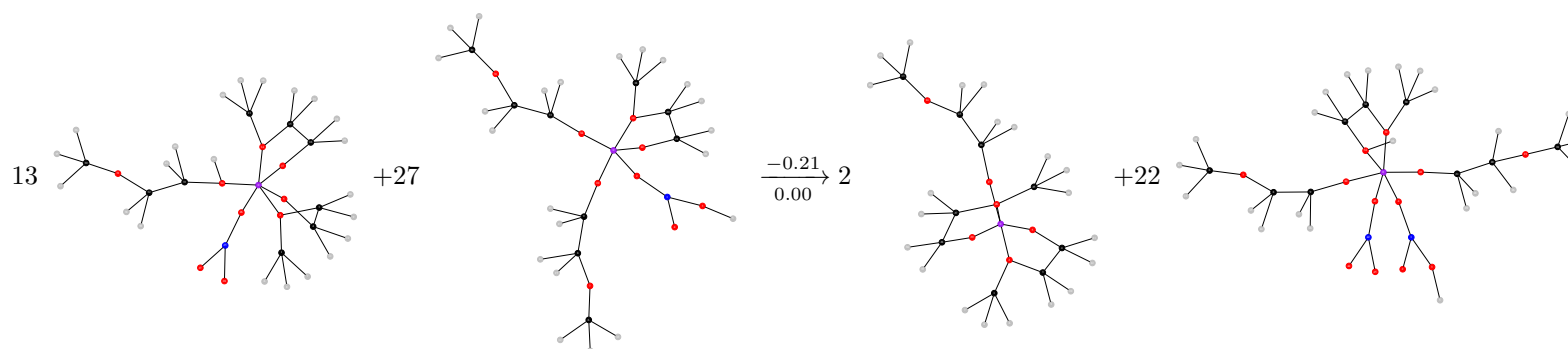
product bonds broken:

[(0, 0), (0, 19)]

[(1, 0), (1, 38)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 26)]

[(0, 29), (0, 34)]

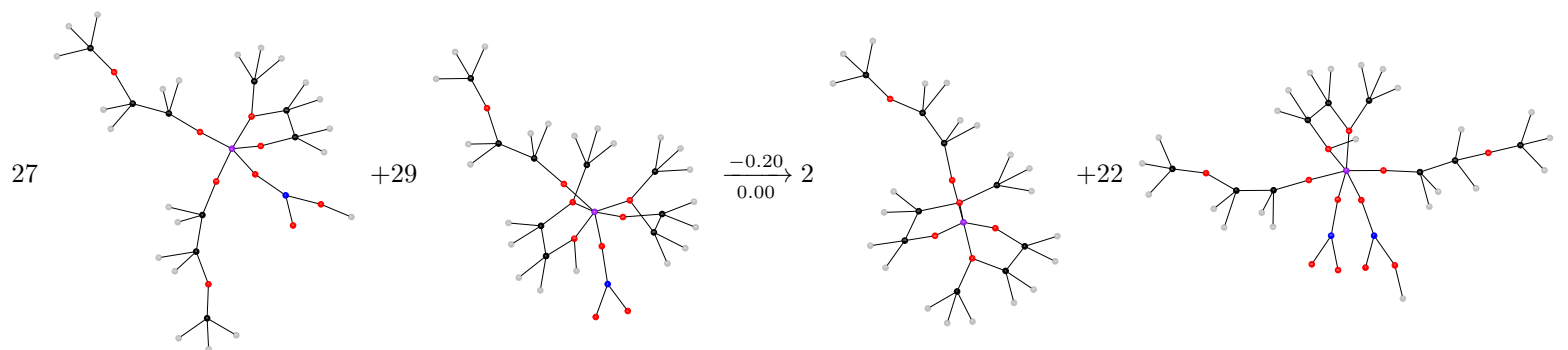
product bonds broken:

[(1, 0), (1, 43)]

[(1, 34), (1, 46)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(1, 0), (1, 2)]

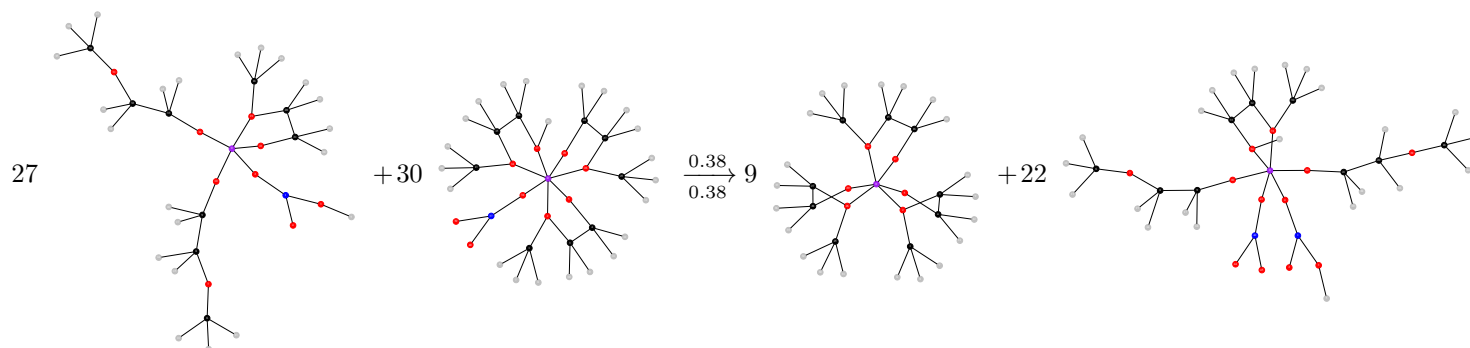
[(1, 5), (1, 10)]

product bonds broken:

[(1, 0), (1, 43)]

[(1, 34), (1, 46)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(1, 0), (1, 38)]

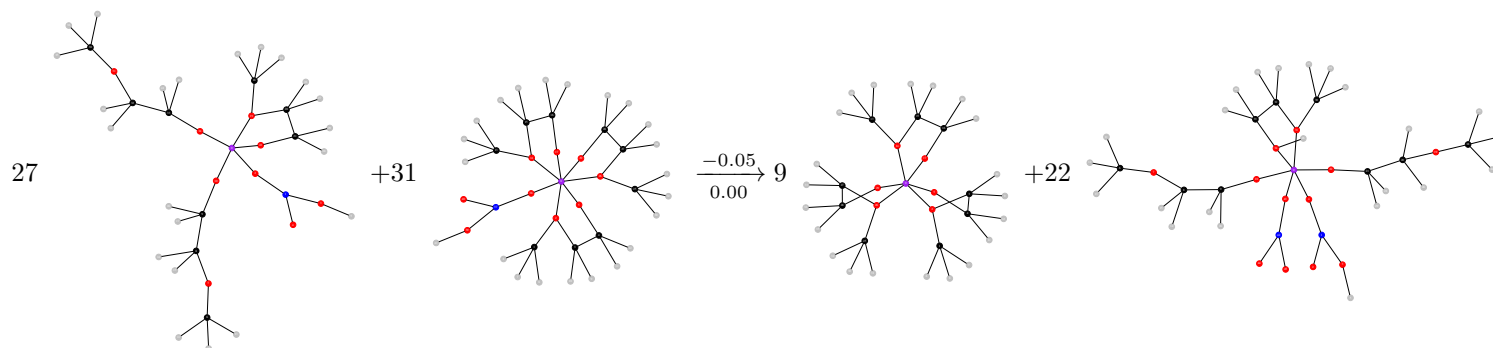
[(1, 17), (1, 41)]

product bonds broken:

[(1, 0), (1, 43)]

[(1, 34), (1, 46)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(1, 0), (1, 38)]

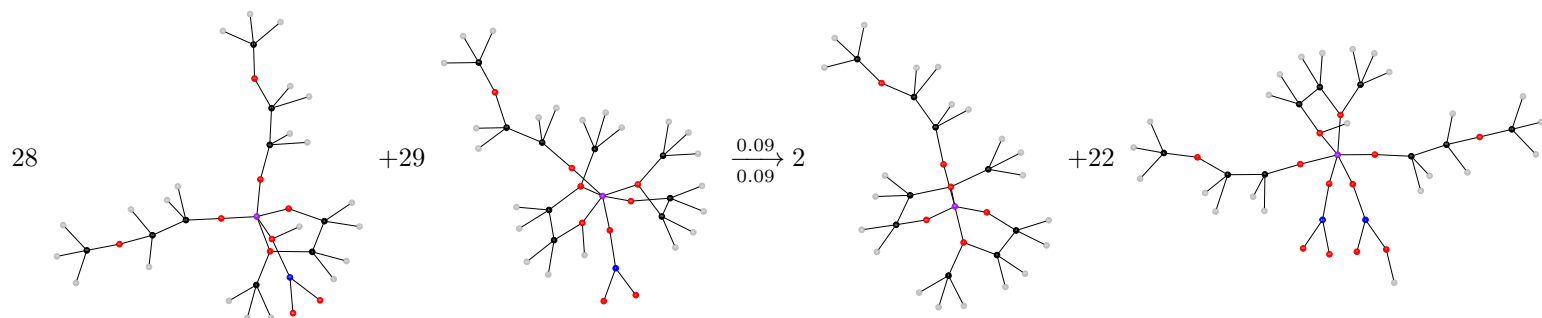
[(1, 39), (1, 41)]

product bonds broken:

[(1, 0), (1, 43)]

[(1, 34), (1, 46)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 27)]

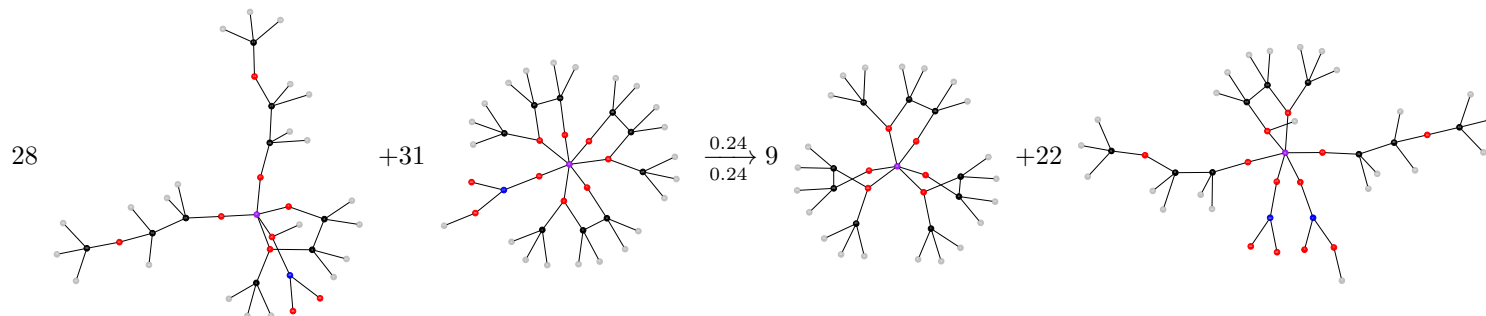
[(1, 0), (1, 19)]

product bonds broken:

[(0, 0), (0, 2)]

[(1, 0), (1, 4)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(0, 27), (0, 29)]

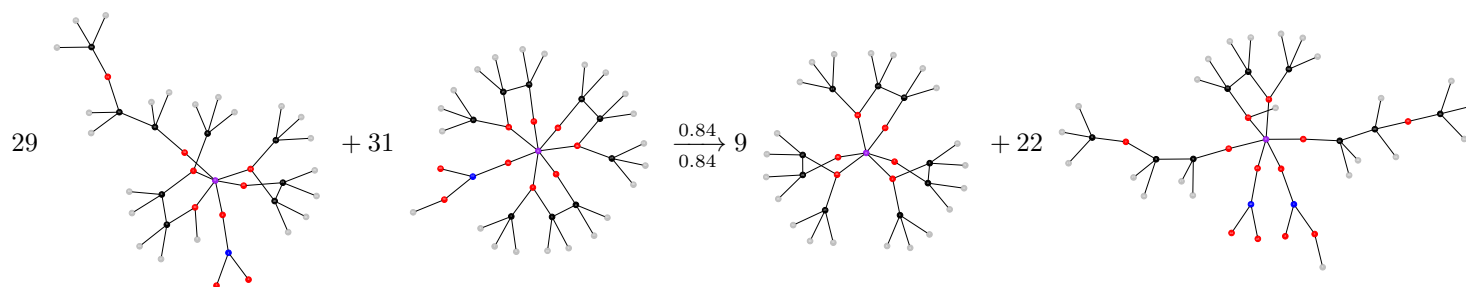
[(1, 0), (1, 38)]

product bonds broken:

[(1, 0), (1, 4)]

[(1, 34), (1, 46)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

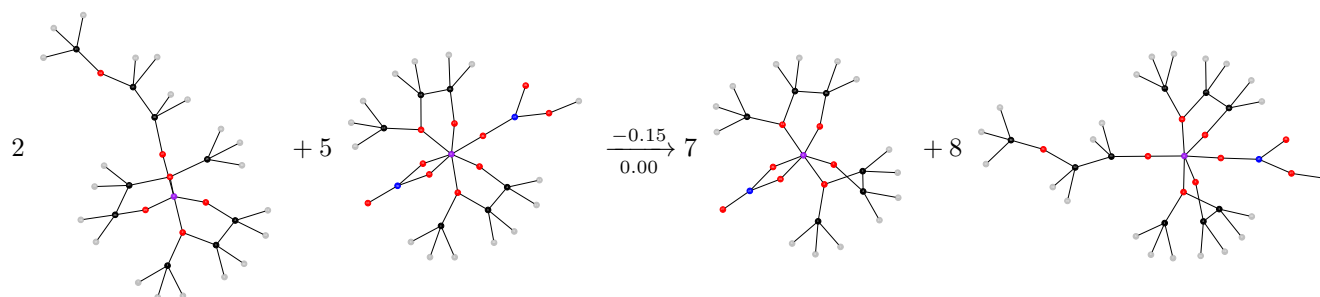
[(0, 0), (0, 19)]

[(1, 0), (1, 38)]

product bonds broken:

[(1, 0), (1, 4)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(1, 0), (1, 26)]

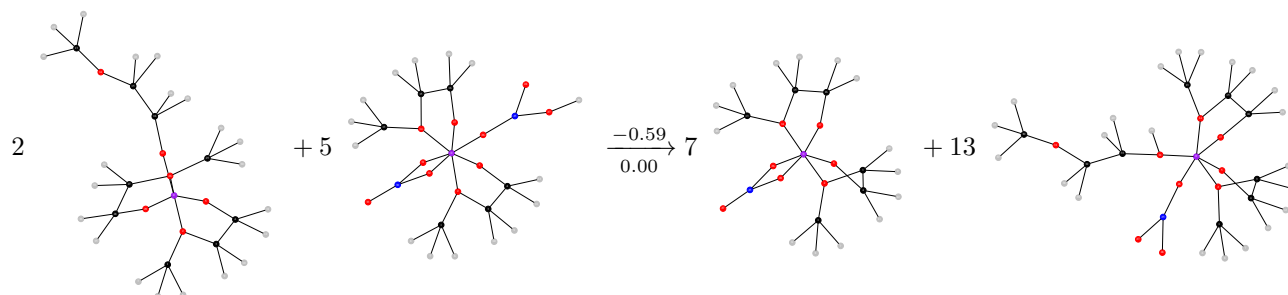
[(1, 1), (1, 7)]

product bonds broken:

[(0, 1), (0, 8)]

[(1, 0), (1, 26)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(1, 0), (1, 26)]

[(1, 27), (1, 29)]

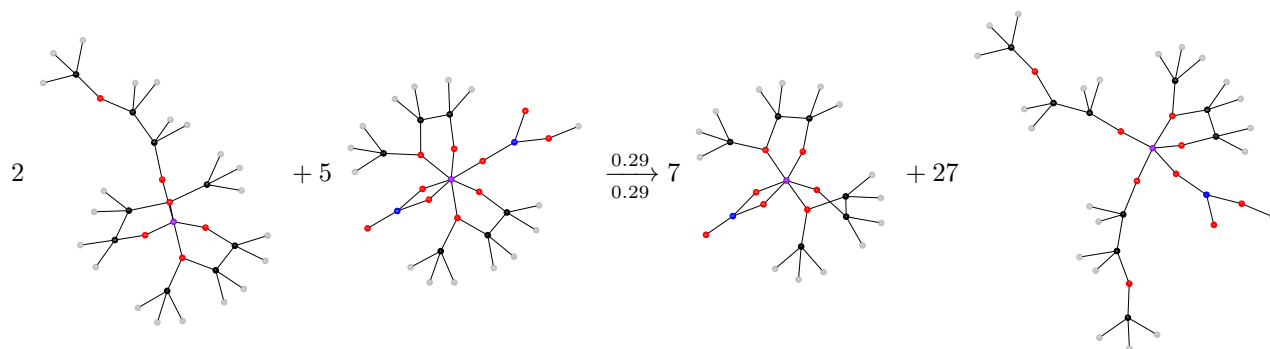
product bonds broken:

[(1, 0), (1, 26)]

[(1, 29), (1, 34)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 2)]

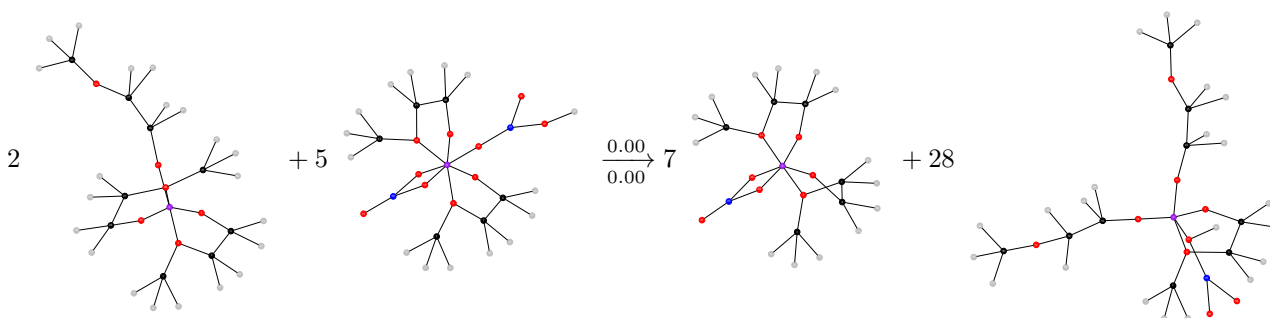
[(1, 0), (1, 26)]

product bonds broken:

[(1, 0), (1, 2)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

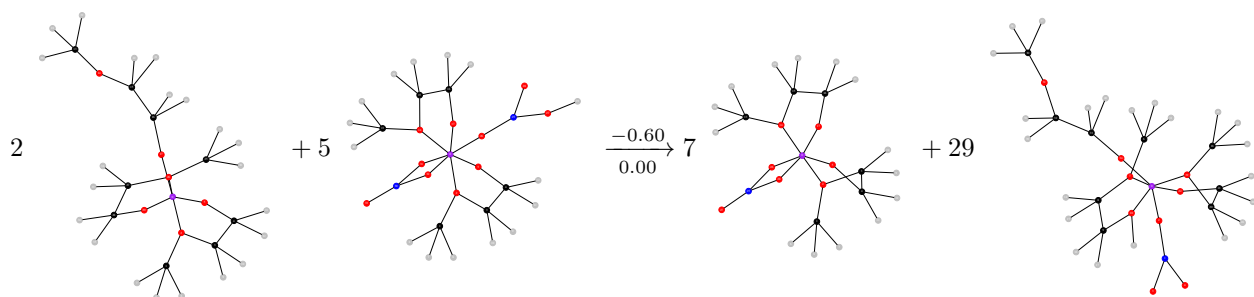
[(0, 0), (0, 2)]

[(1, 0), (1, 26)]

product bonds broken:

[(1, 0), (1, 27)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(1, 0), (1, 26)]

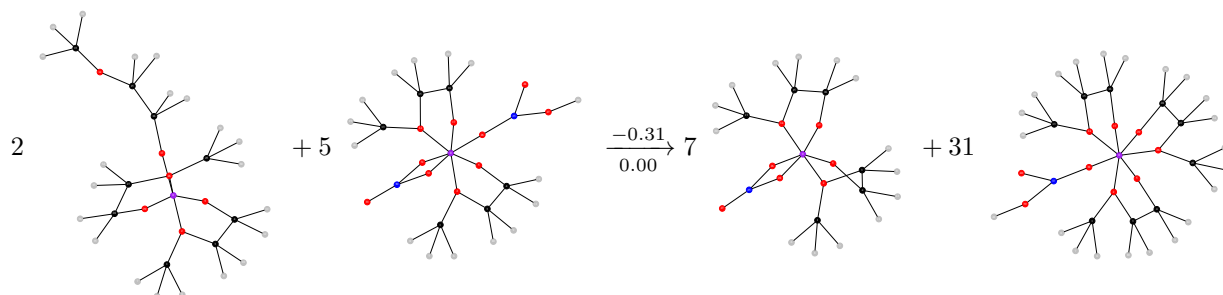
[(1, 27), (1, 29)]

product bonds broken:

[(1, 0), (1, 2)]

[(1, 5), (1, 10)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

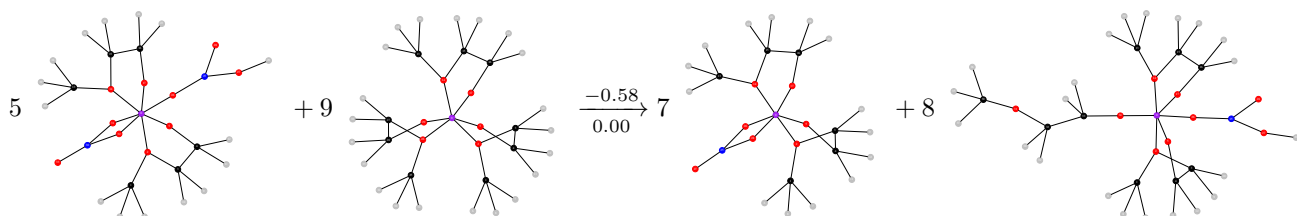
[(1, 0), (1, 26)]

product bonds broken:

[(1, 0), (1, 2)]

[(1, 0), (1, 38)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 26)]

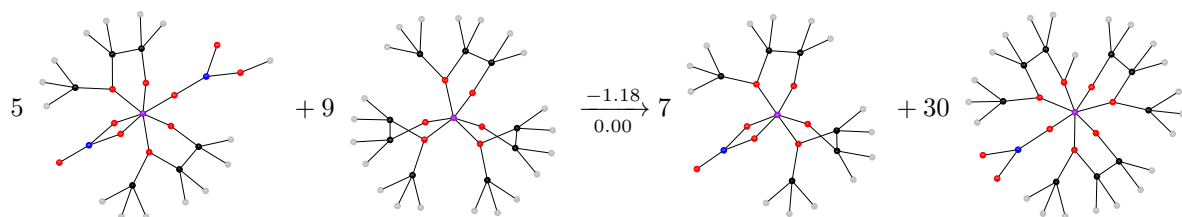
[(1, 0), (1, 2)]

product bonds broken:

[(1, 0), (1, 26)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 26)]

[(0, 27), (0, 29)]

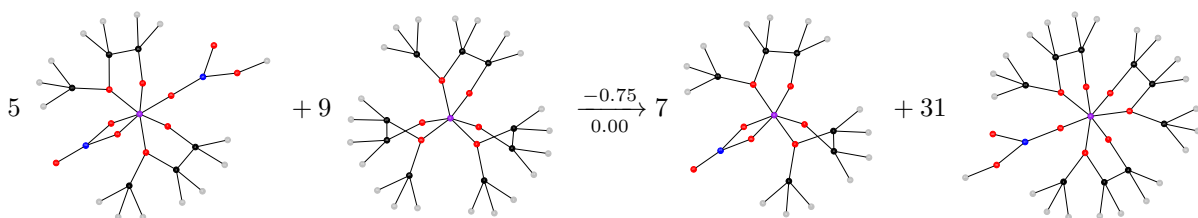
product bonds broken:

[(1, 0), (1, 38)]

[(1, 17), (1, 41)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 26)]

[(1, 1), (1, 8)]

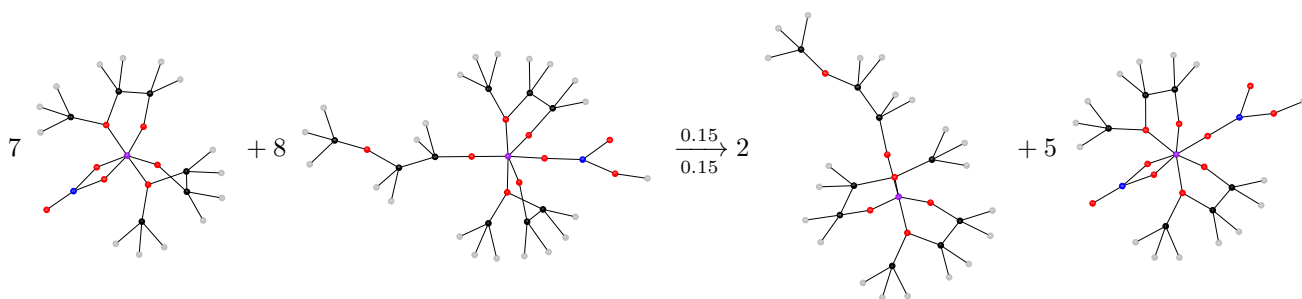
product bonds broken:

[(1, 0), (1, 38)]

[(1, 1), (1, 7)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(1, 0), (1, 26)]

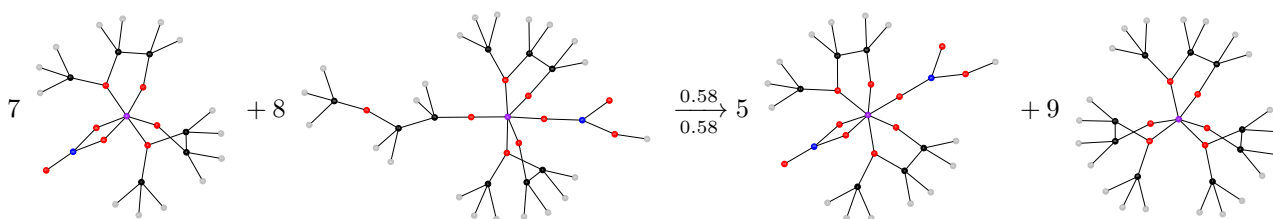
[(1, 1), (1, 8)]

product bonds broken:

[(0, 1), (0, 8)]

[(1, 0), (1, 26)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

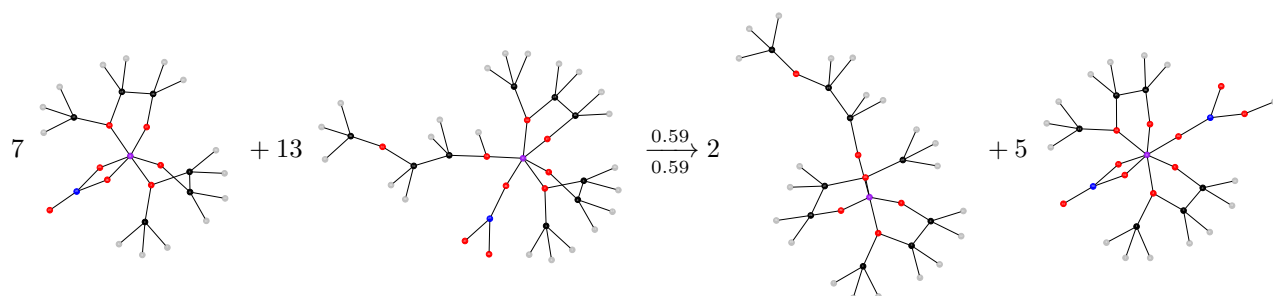
[(1, 0), (1, 26)]

product bonds broken:

[(0, 0), (0, 26)]

[(1, 0), (1, 2)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(1, 0), (1, 26)]

[(1, 29), (1, 34)]

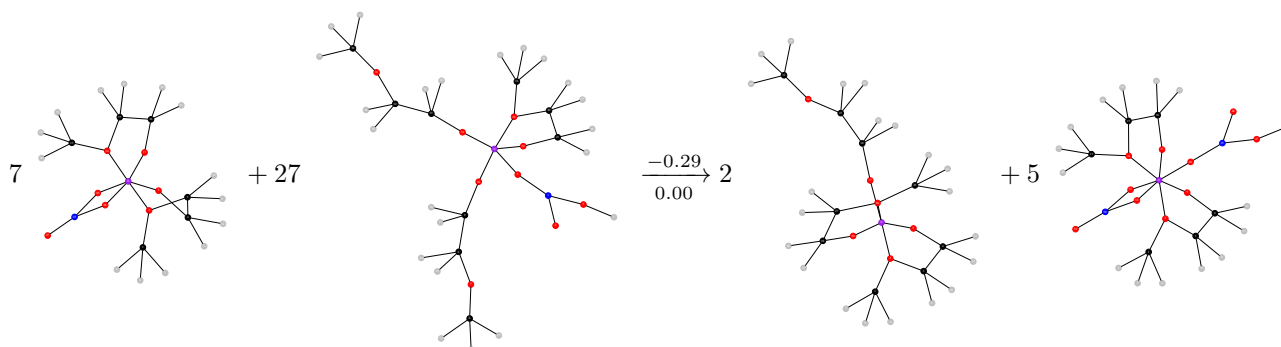
product bonds broken:

[(1, 0), (1, 26)]

[(1, 27), (1, 29)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(1, 0), (1, 2)]

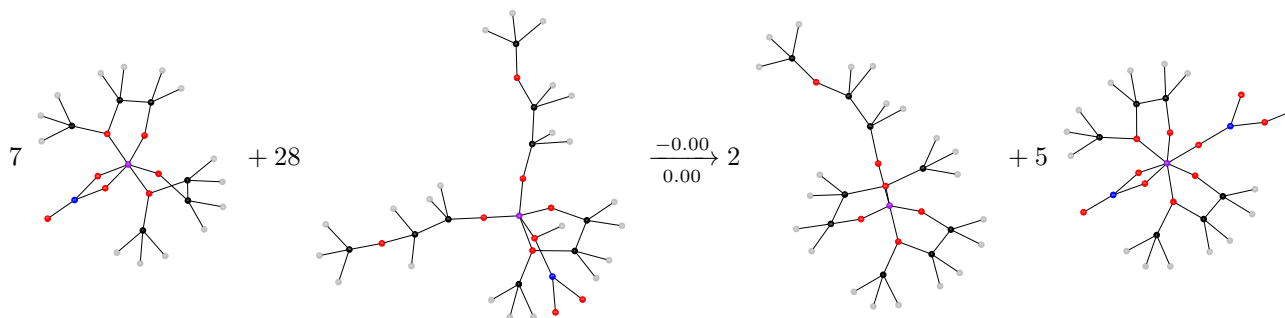
product bonds broken:

[(0, 0), (0, 2)]

[(1, 0), (1, 26)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

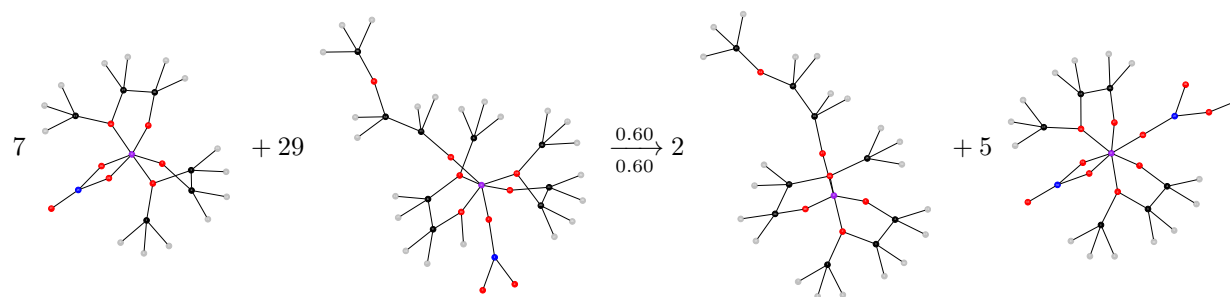
[(1, 0), (1, 27)]

product bonds broken:

[(0, 0), (0, 2)]

[(1, 0), (1, 26)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(1, 0), (1, 2)]

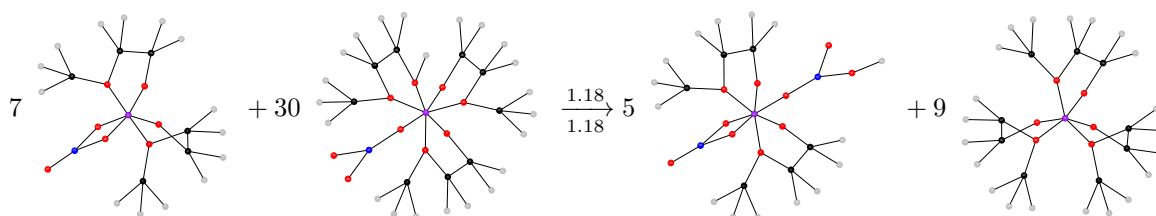
[(1, 5), (1, 10)]

product bonds broken:

[(1, 0), (1, 26)]

[(1, 27), (1, 29)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(1, 0), (1, 38)]

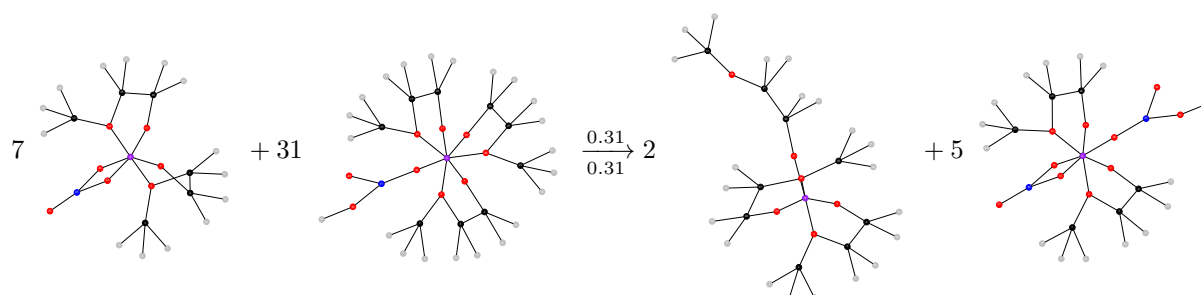
[(1, 17), (1, 41)]

product bonds broken:

[(0, 0), (0, 26)]

[(0, 27), (0, 29)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(1, 0), (1, 2)]

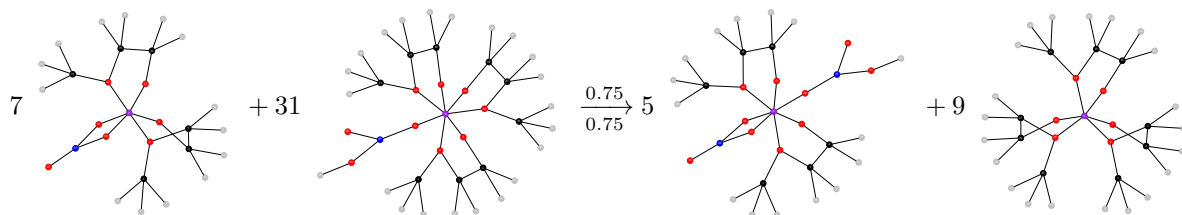
[(1, 0), (1, 38)]

product bonds broken:

[(1, 0), (1, 26)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(1, 0), (1, 38)]

[(1, 1), (1, 7)]

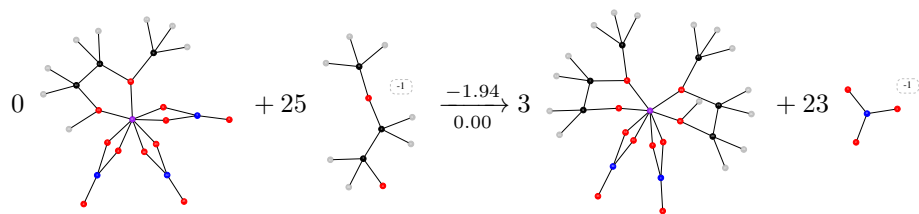
product bonds broken:

[(0, 0), (0, 26)]

[(1, 1), (1, 8)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 3)]

[(0, 0), (0, 2)]

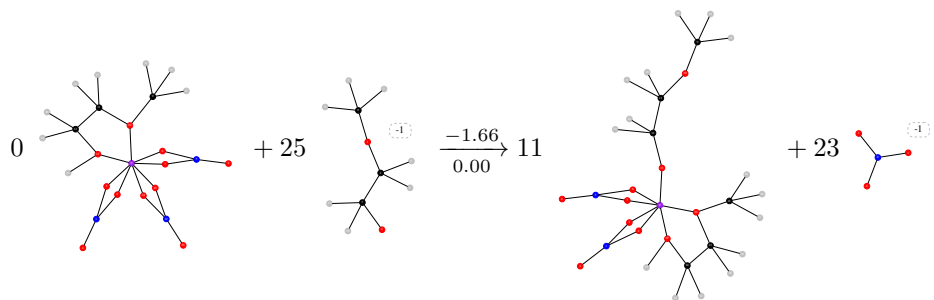
product bonds broken:

[(0, 0), (0, 9)]

[(0, 0), (0, 6)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 3)]

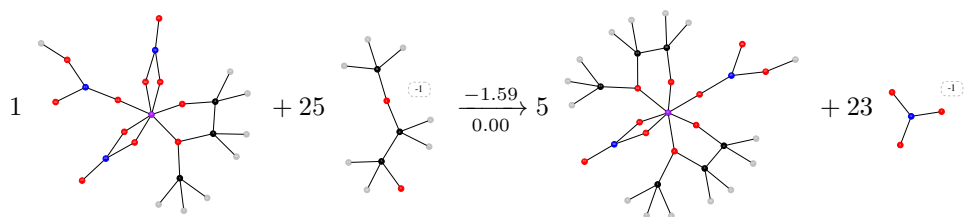
[(0, 0), (0, 2)]

product bonds broken:

[(0, 0), (0, 13)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 23)]

[(0, 0), (0, 24)]

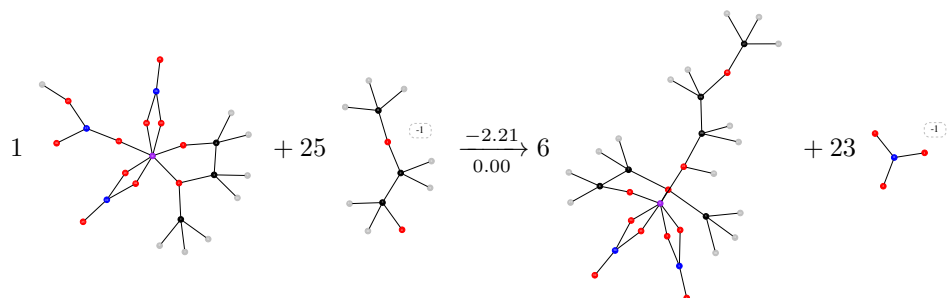
product bonds broken:

[(0, 0), (0, 17)]

[(0, 0), (0, 14)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 14)]

[(0, 15), (0, 17)]

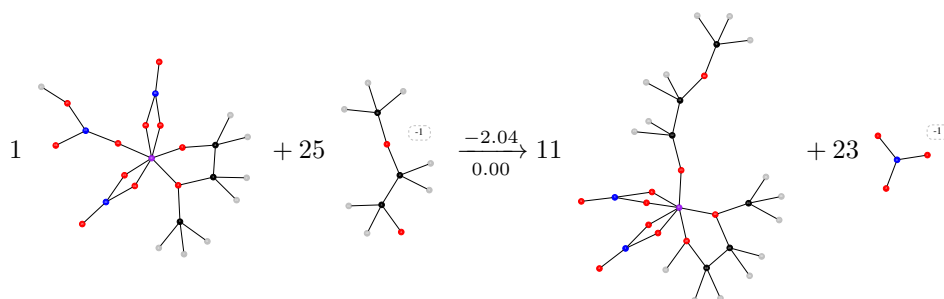
product bonds broken:

[(0, 0), (0, 21)]

[(0, 21), (0, 29)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 14)]

[(0, 15), (0, 17)]

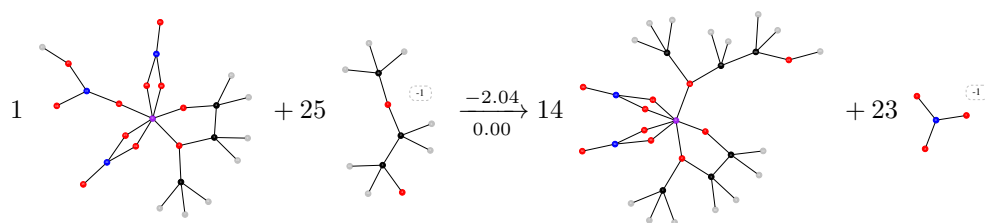
product bonds broken:

[(0, 0), (0, 13)]

[(0, 25), (0, 33)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 14)]

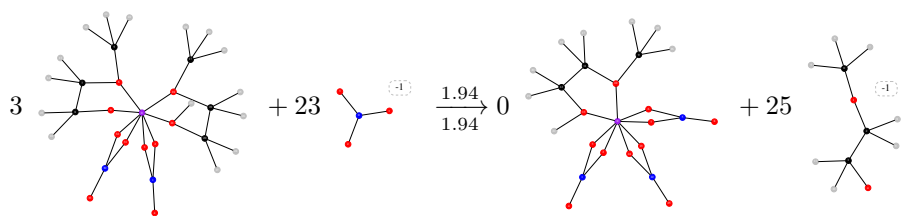
[(0, 15), (0, 17)]

product bonds broken:

[(0, 0), (0, 18)]

[(0, 21), (0, 29)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 9)]

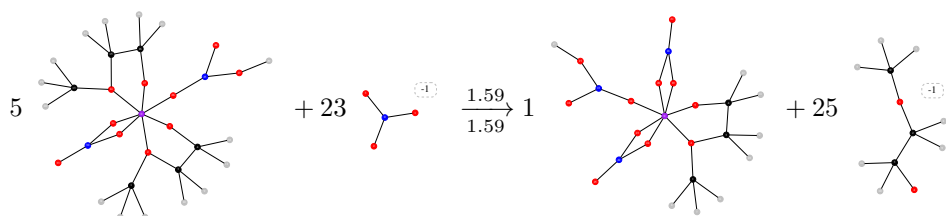
[(0, 0), (0, 6)]

product bonds broken:

[(0, 0), (0, 3)]

[(0, 0), (0, 2)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 17)]

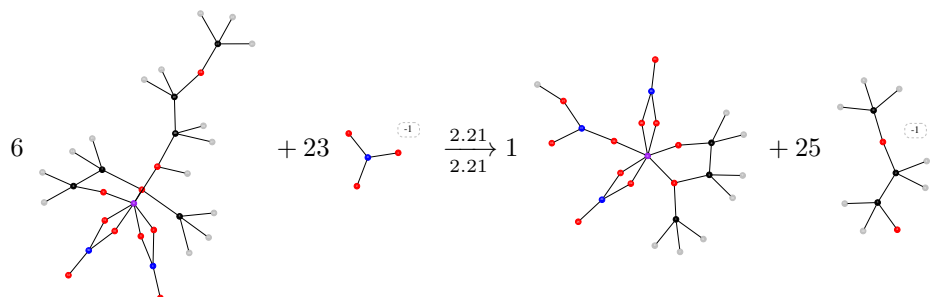
[(0, 0), (0, 14)]

product bonds broken:

[(0, 0), (0, 23)]

[(0, 0), (0, 24)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 21)]

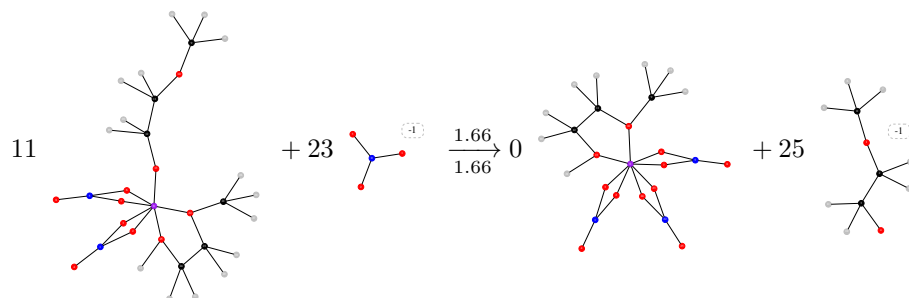
[(0, 21), (0, 29)]

product bonds broken:

[(0, 0), (0, 14)]

[(0, 15), (0, 17)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

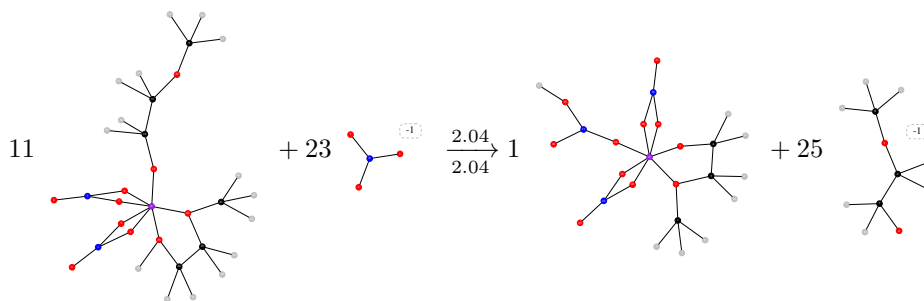
[(0, 0), (0, 13)]

product bonds broken:

[(0, 0), (0, 3)]

[(0, 0), (0, 2)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 13)]

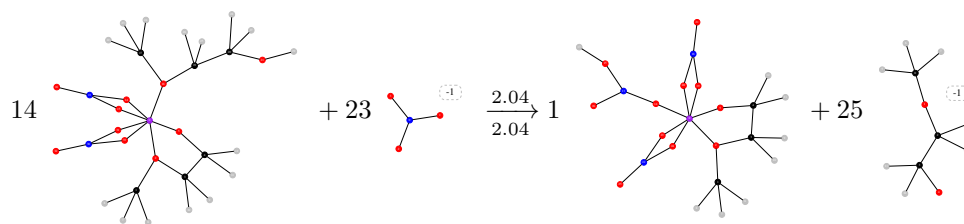
[(0, 25), (0, 33)]

product bonds broken:

[(0, 0), (0, 14)]

[(0, 15), (0, 17)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 18)]

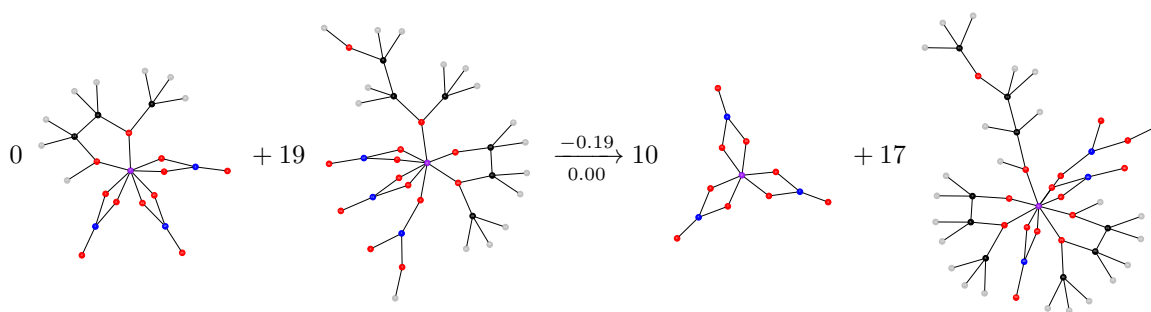
[(0, 21), (0, 29)]

product bonds broken:

[(0, 0), (0, 14)]

[(0, 15), (0, 17)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 10)]

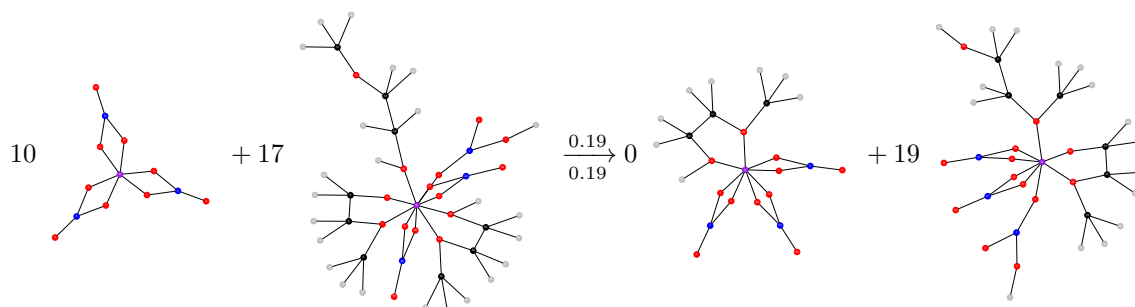
[(0, 0), (0, 13)]

product bonds broken:

[(1, 0), (1, 22)]

[(1, 0), (1, 35)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(1, 0), (1, 22)]

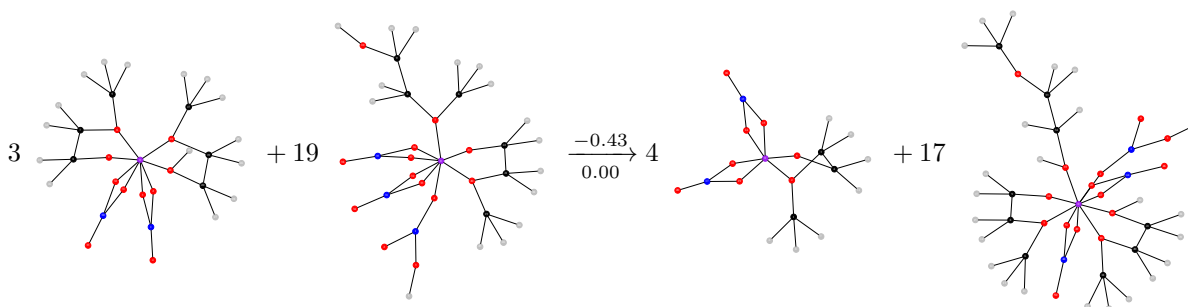
[(1, 0), (1, 35)]

product bonds broken:

[(0, 0), (0, 10)]

[(0, 0), (0, 13)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(1, 0), (1, 4)]

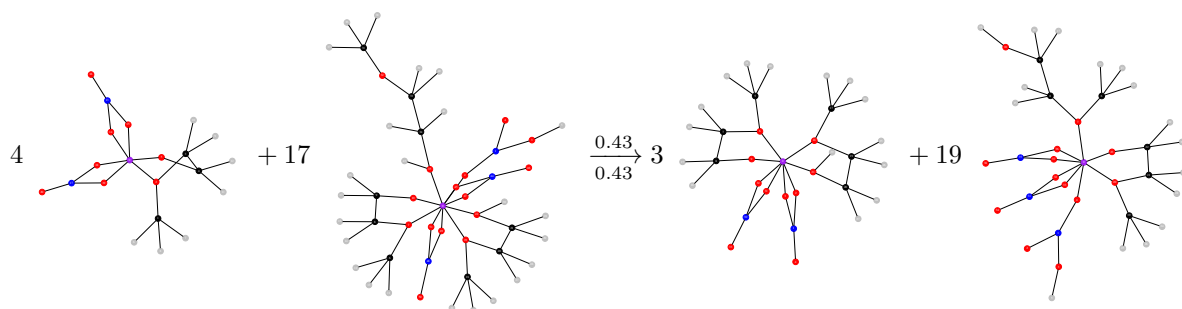
[(1, 0), (1, 7)]

product bonds broken:

[(1, 0), (1, 2)]

[(1, 0), (1, 35)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(1, 0), (1, 2)]

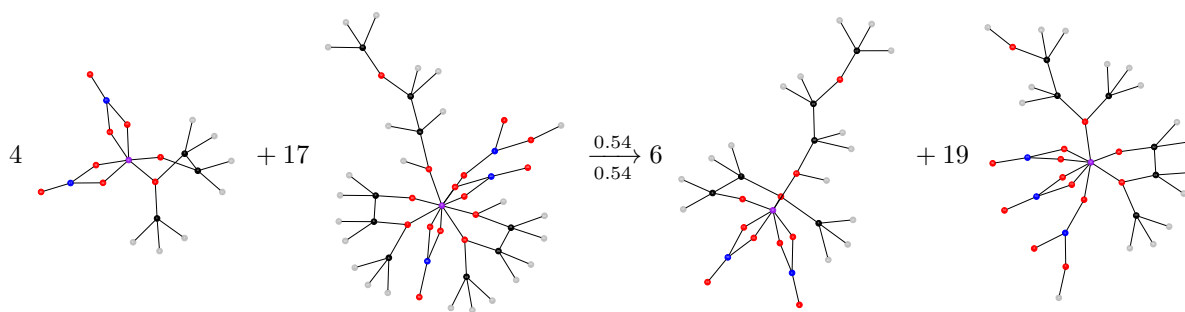
[(1, 0), (1, 35)]

product bonds broken:

[(1, 0), (1, 4)]

[(1, 0), (1, 7)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

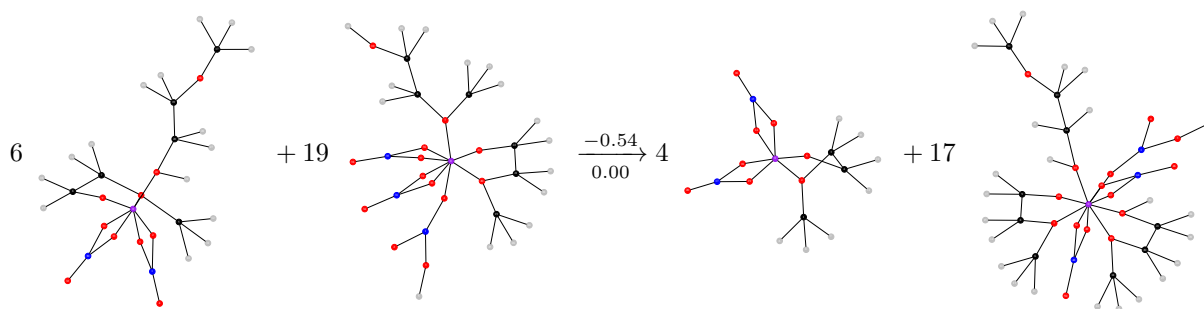
[(1, 0), (1, 22)]

[(1, 0), (1, 35)]

product bonds broken:

[(0, 0), (0, 21)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

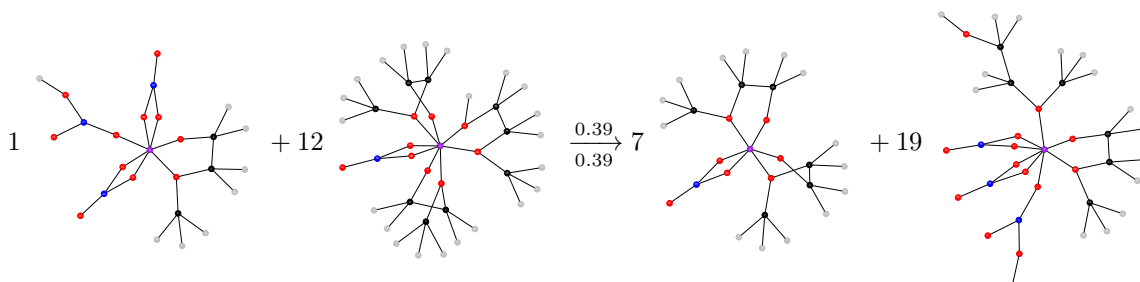
[(0, 0), (0, 21)]

product bonds broken:

[(1, 0), (1, 22)]

[(1, 0), (1, 35)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

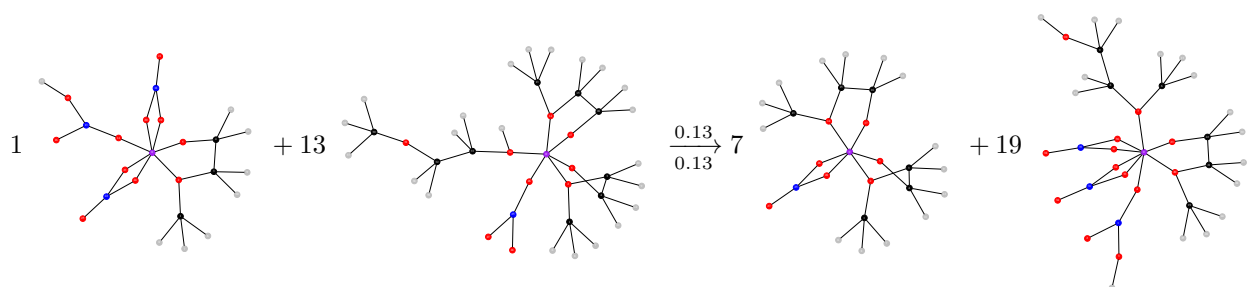
[(1, 0), (1, 26)]

[(1, 0), (1, 29)]

product bonds broken:

[(1, 0), (1, 7)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

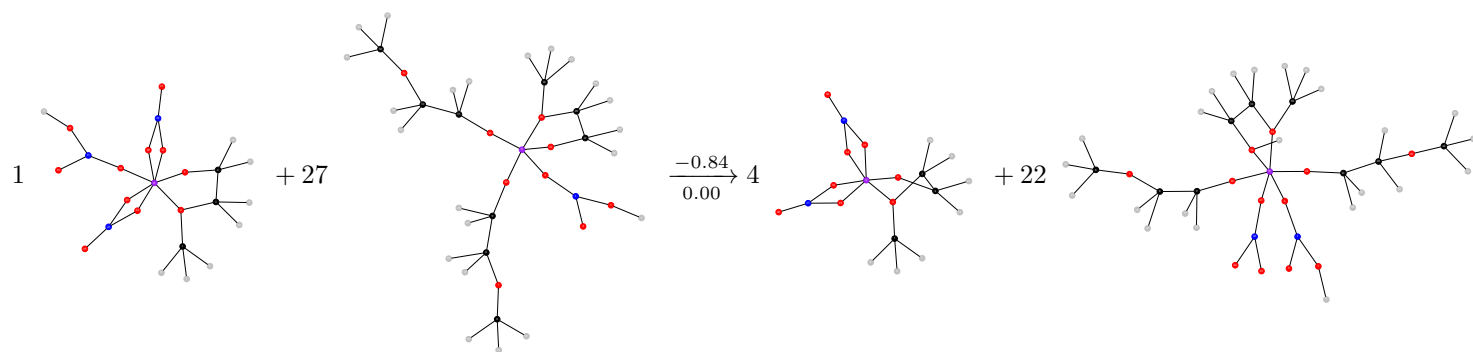
[(1, 0), (1, 34)]

product bonds broken:

[(0, 0), (0, 26)]

[(1, 0), (1, 7)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 14)]

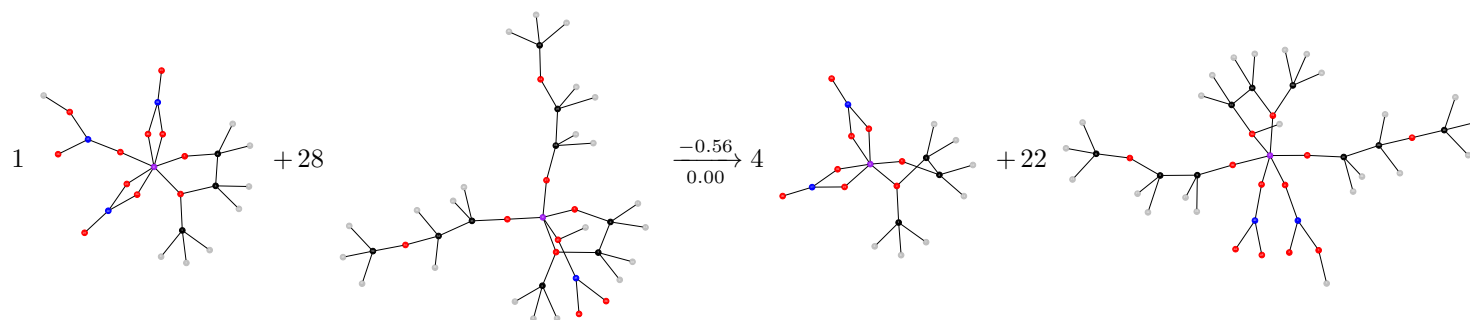
[(1, 3), (1, 5)]

product bonds broken:

[(1, 0), (1, 4)]

[(1, 34), (1, 46)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 14)]

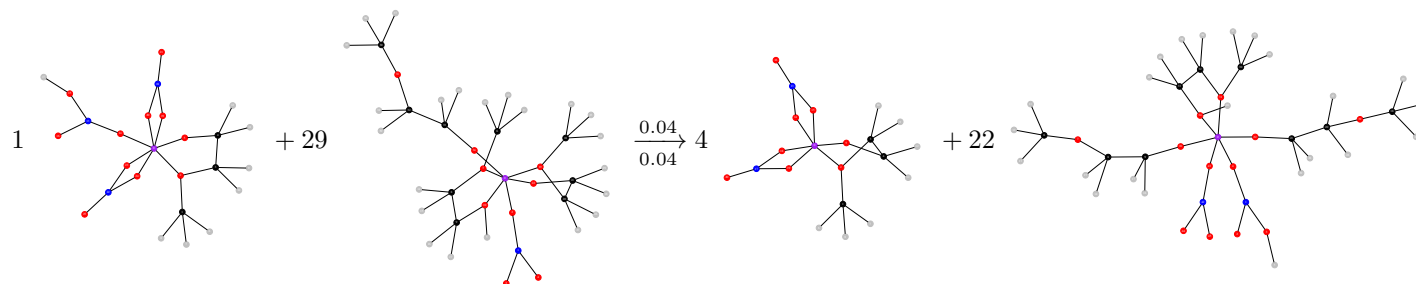
[(1, 27), (1, 29)]

product bonds broken:

[(1, 0), (1, 4)]

[(1, 34), (1, 46)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

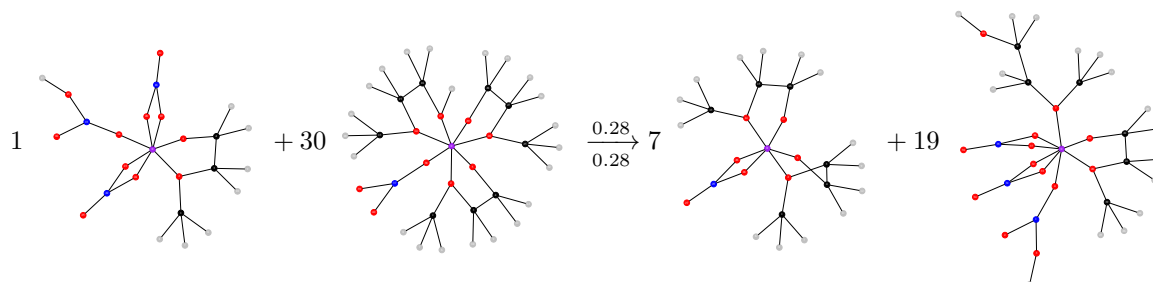
[(0, 0), (0, 14)]

[(1, 0), (1, 19)]

product bonds broken:

[(1, 0), (1, 4)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(1, 0), (1, 14)]

[(1, 0), (1, 17)]

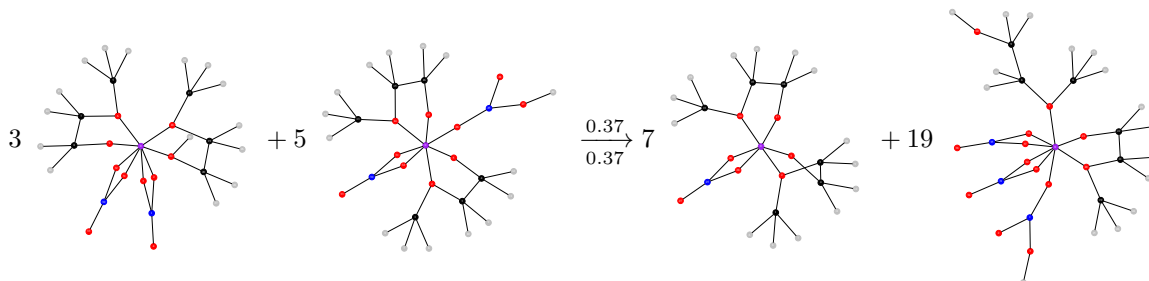
product bonds broken:

[(0, 0), (0, 26)]

[(1, 0), (1, 7)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 21)]

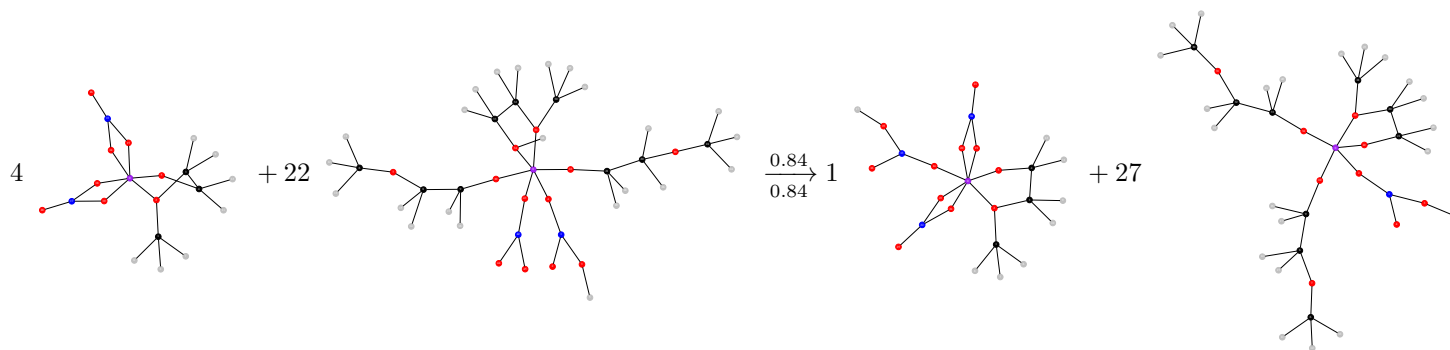
[(1, 0), (1, 26)]

product bonds broken:

[(1, 0), (1, 4)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(1, 0), (1, 4)]

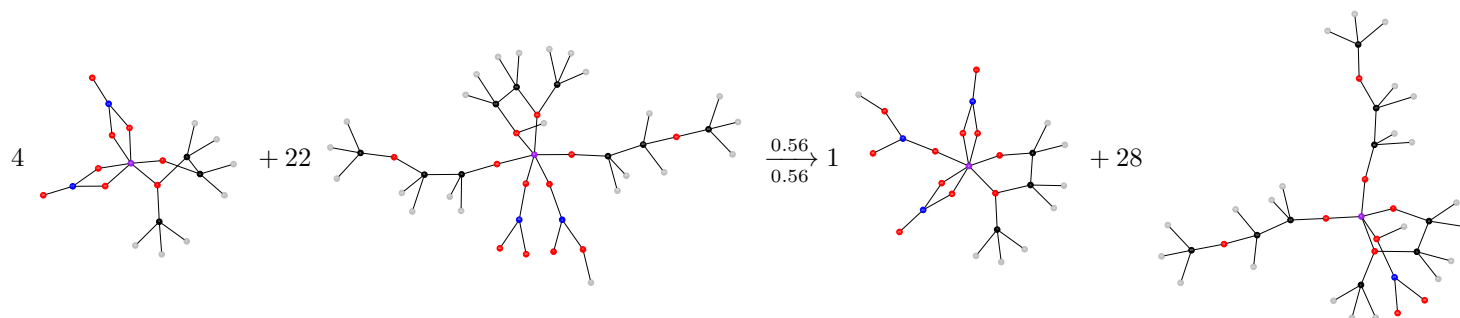
[(1, 34), (1, 46)]

product bonds broken:

[(0, 0), (0, 14)]

[(1, 3), (1, 5)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(1, 0), (1, 4)]

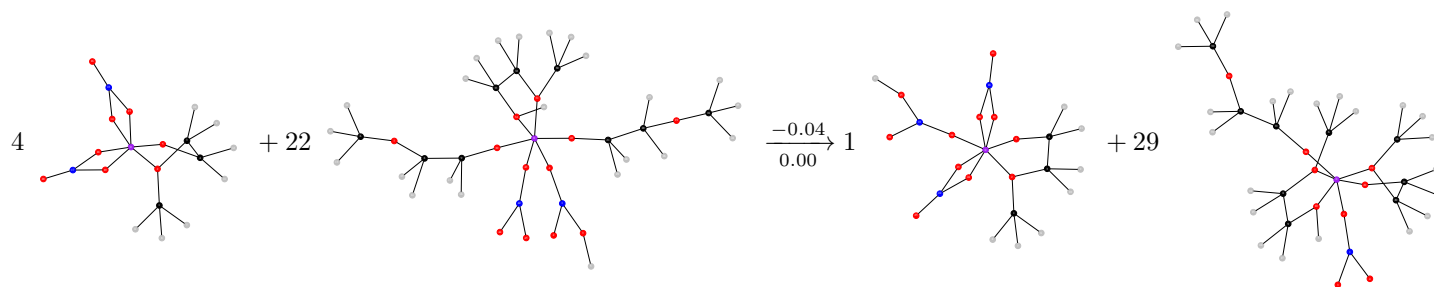
[(1, 34), (1, 46)]

product bonds broken:

[(0, 0), (0, 14)]

[(1, 27), (1, 29)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

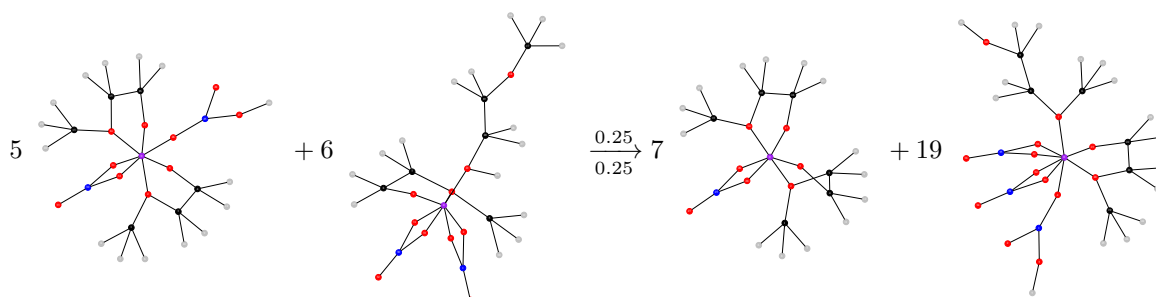
[(1, 0), (1, 4)]

product bonds broken:

[(0, 0), (0, 14)]

[(1, 0), (1, 19)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 26)]

[(1, 0), (1, 21)]

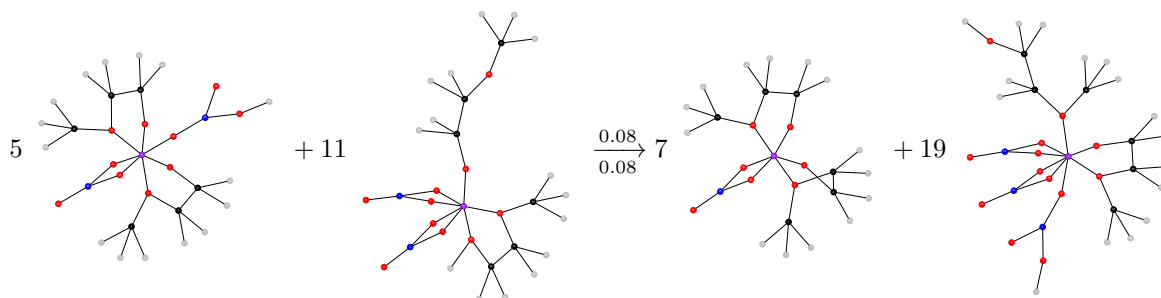
product bonds broken:

[(1, 0), (1, 4)]

[(1, 0), (1, 7)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 26)]

[(1, 0), (1, 25)]

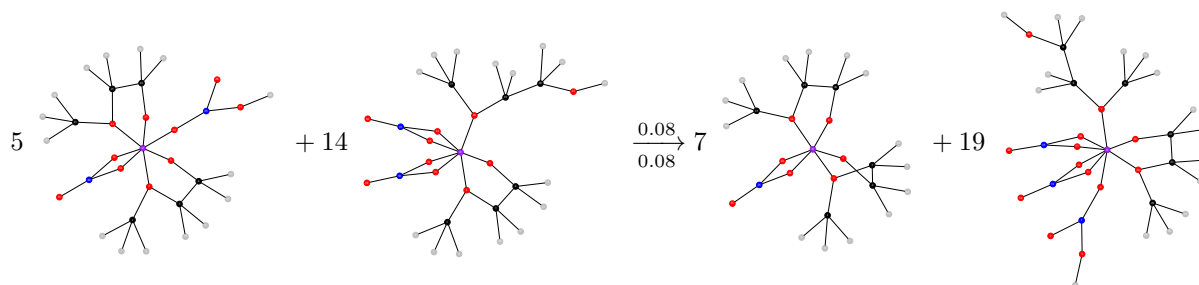
product bonds broken:

[(1, 0), (1, 4)]

[(1, 0), (1, 20)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 26)]

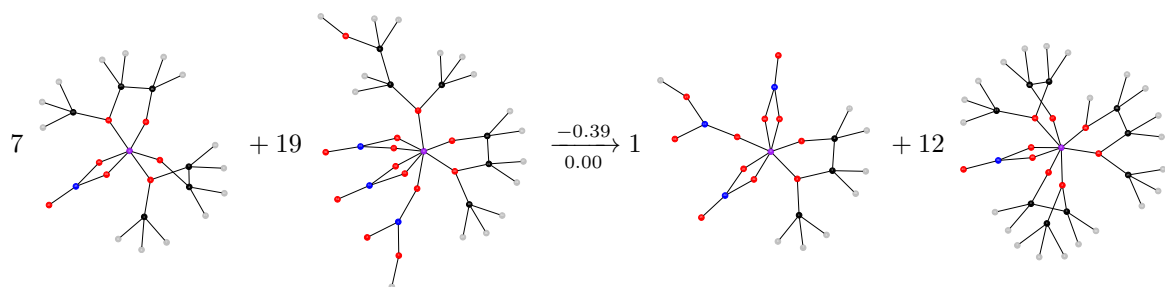
[(1, 1), (1, 8)]

product bonds broken:

[(1, 0), (1, 4)]

[(1, 19), (1, 25)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

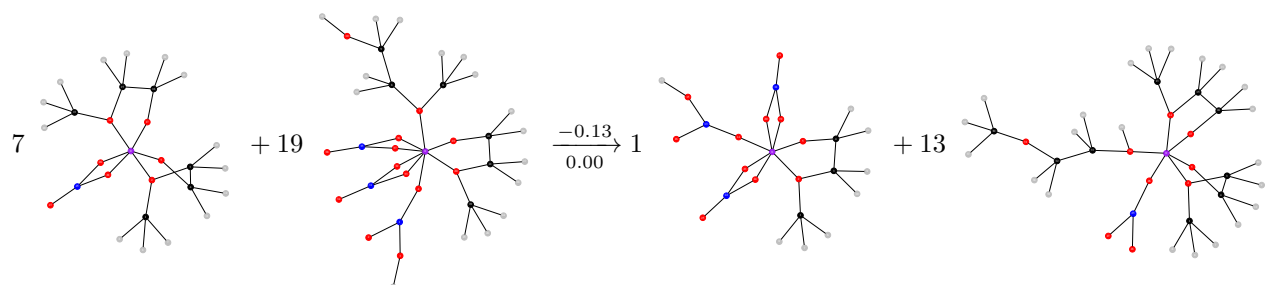
[(1, 0), (1, 7)]

product bonds broken:

[(1, 0), (1, 26)]

[(1, 0), (1, 29)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

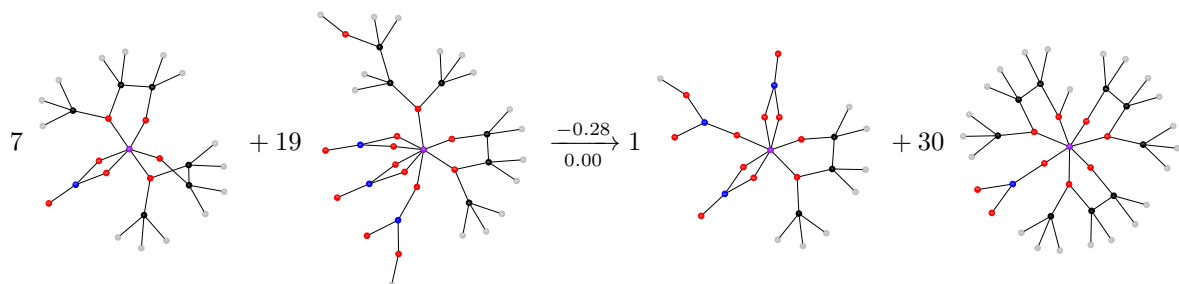
[(0, 0), (0, 26)]

[(1, 0), (1, 7)]

product bonds broken:

[(1, 0), (1, 34)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 26)]

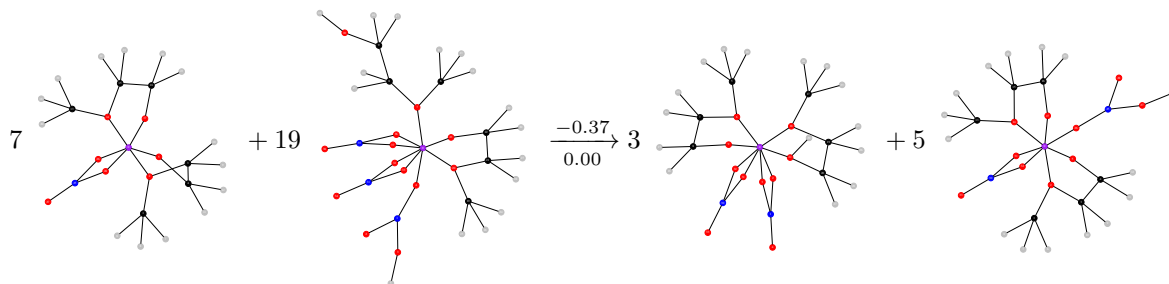
[(1, 0), (1, 7)]

product bonds broken:

[(1, 0), (1, 14)]

[(1, 0), (1, 17)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

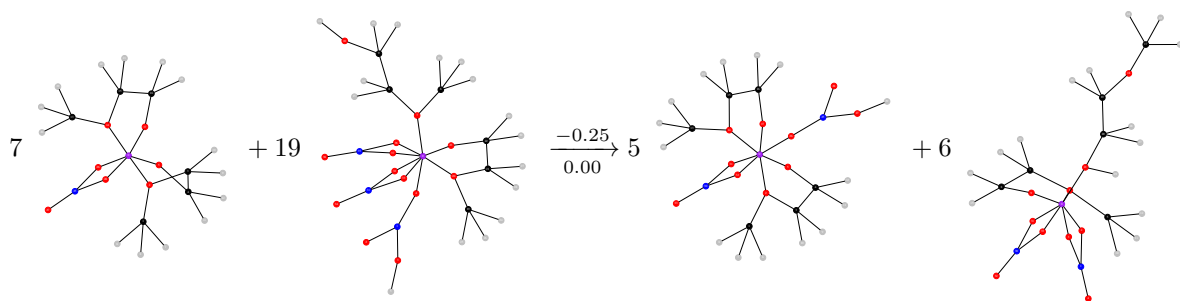
[(1, 0), (1, 4)]

product bonds broken:

[(0, 0), (0, 21)]

[(1, 0), (1, 26)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(1, 0), (1, 4)]

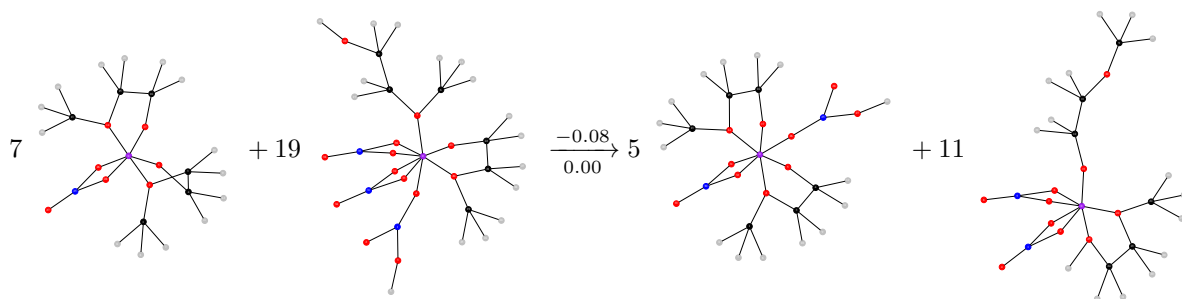
[(1, 0), (1, 7)]

product bonds broken:

[(0, 0), (0, 26)]

[(1, 0), (1, 21)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(1, 0), (1, 4)]

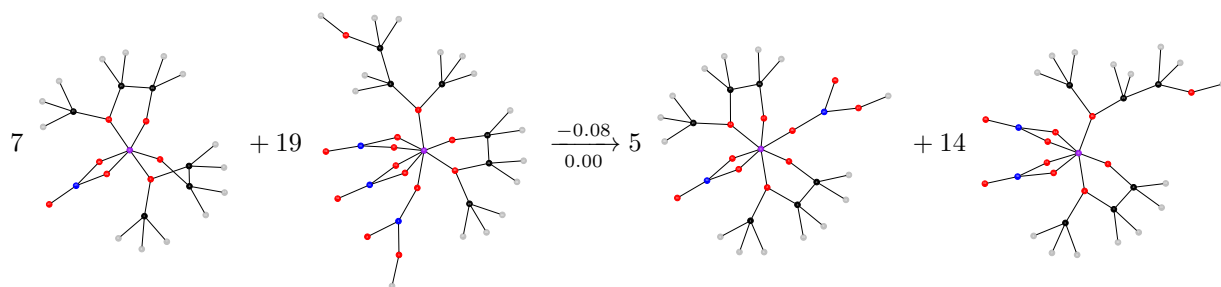
[(1, 0), (1, 20)]

product bonds broken:

[(0, 0), (0, 26)]

[(1, 0), (1, 25)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(1, 0), (1, 4)]

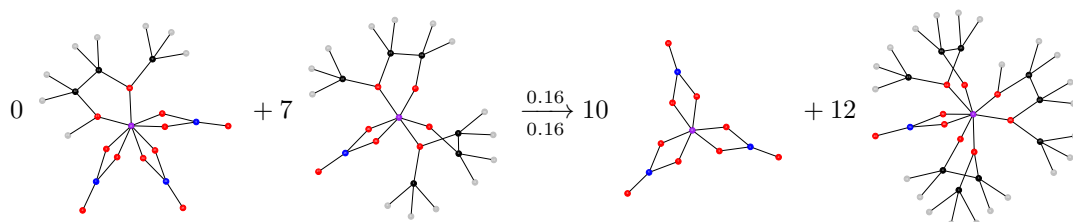
[(1, 3), (1, 5)]

product bonds broken:

[(0, 0), (0, 26)]

[(0, 27), (0, 29)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 10)]

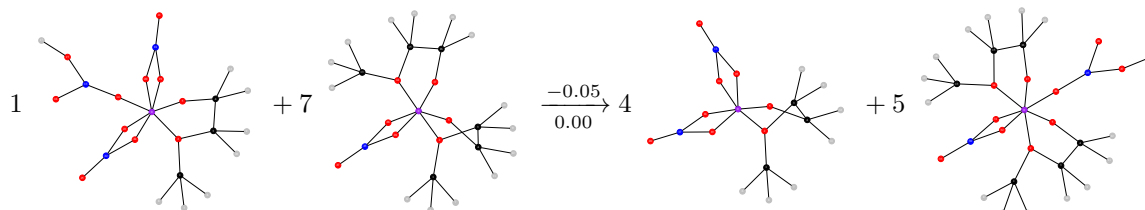
[(0, 0), (0, 13)]

product bonds broken:

[(1, 0), (1, 26)]

[(1, 0), (1, 29)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 14)]

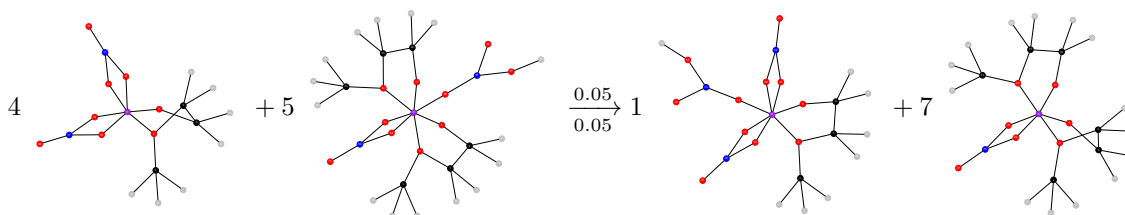
[(1, 1), (1, 8)]

product bonds broken:

[(1, 0), (1, 26)]

[(1, 1), (1, 7)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(1, 0), (1, 26)]

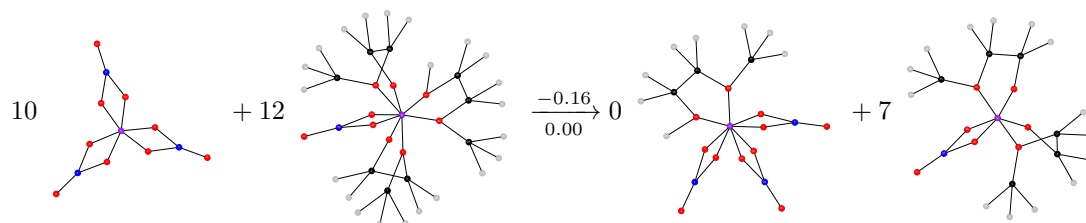
[(1, 1), (1, 7)]

product bonds broken:

[(0, 0), (0, 14)]

[(1, 1), (1, 8)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(1, 0), (1, 26)]

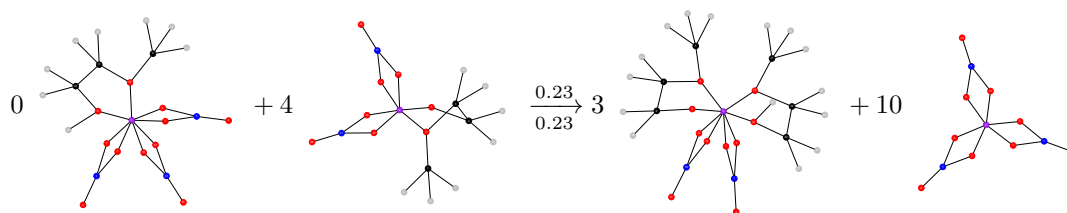
[(1, 0), (1, 29)]

product bonds broken:

[(0, 0), (0, 10)]

[(0, 0), (0, 13)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 10)]

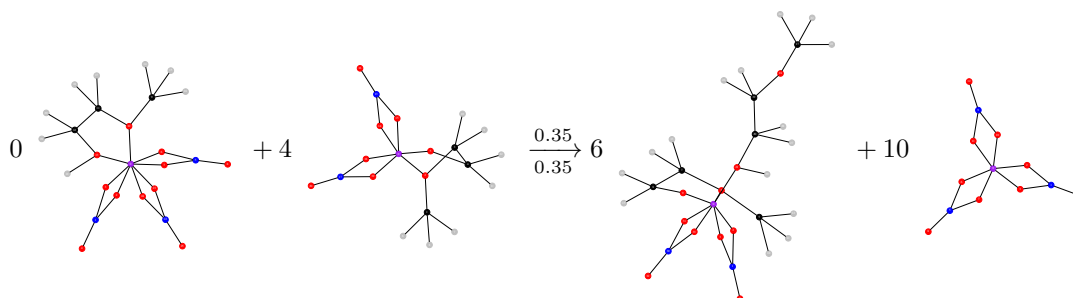
[(0, 0), (0, 13)]

product bonds broken:

[(0, 0), (0, 18)]

[(0, 0), (0, 21)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 10)]

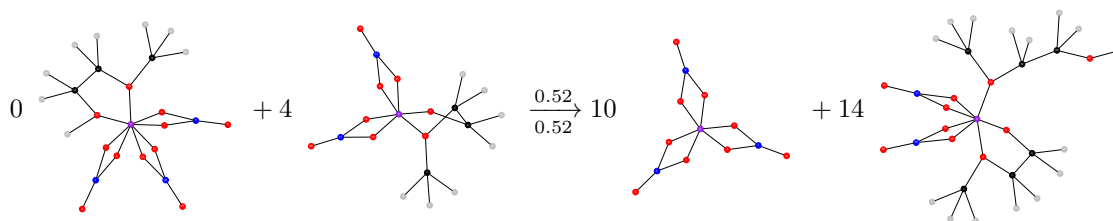
[(0, 0), (0, 13)]

product bonds broken:

[(0, 0), (0, 21)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 10)]

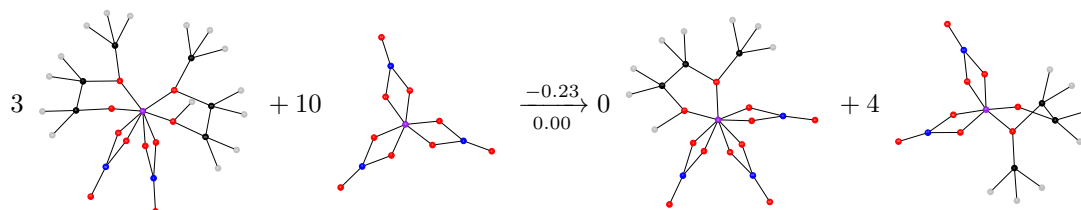
[(0, 0), (0, 13)]

product bonds broken:

[(1, 0), (1, 18)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 18)]

[(0, 0), (0, 21)]

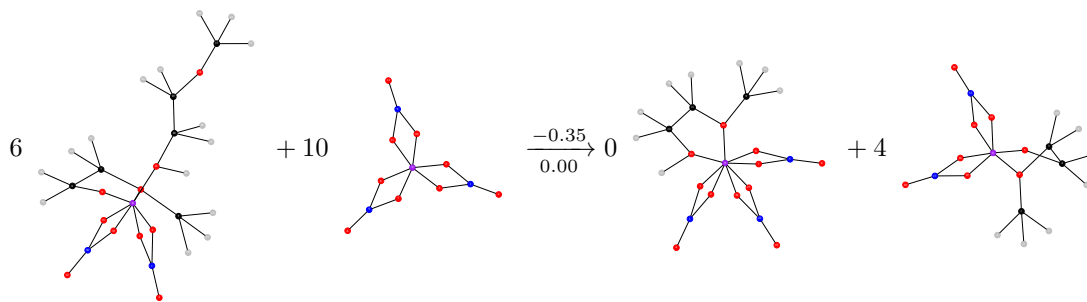
product bonds broken:

[(0, 0), (0, 10)]

[(0, 0), (0, 13)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 21)]

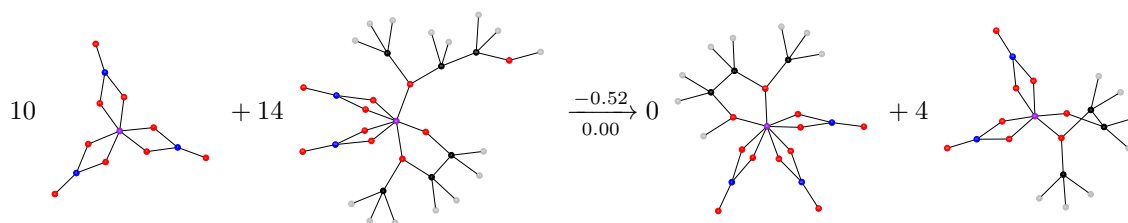
product bonds broken:

[(0, 0), (0, 10)]

[(0, 0), (0, 13)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(1, 0), (1, 18)]

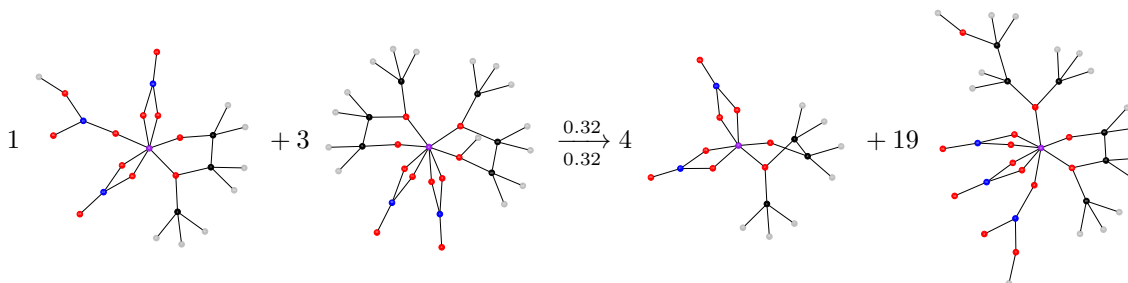
product bonds broken:

[(0, 0), (0, 10)]

[(0, 0), (0, 13)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 14)]

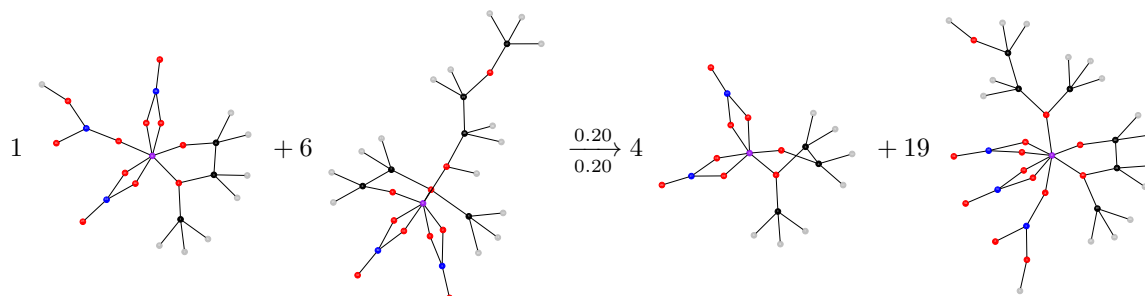
[(1, 0), (1, 21)]

product bonds broken:

[(1, 0), (1, 4)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(1, 0), (1, 21)]

[(1, 5), (1, 11)]

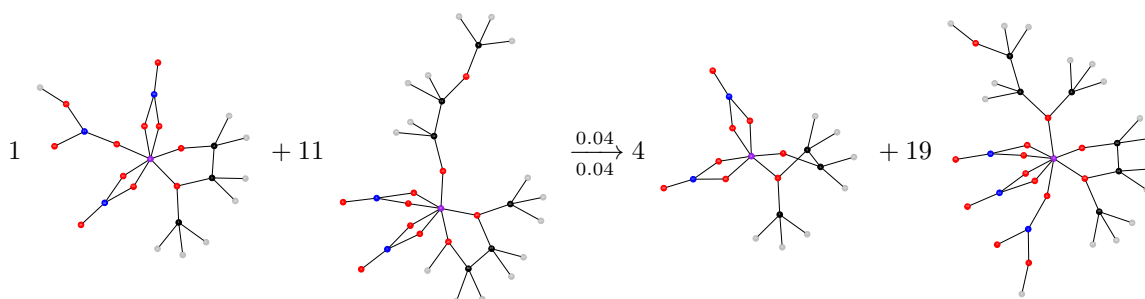
product bonds broken:

[(0, 1), (0, 6)]

[(1, 0), (1, 7)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(1, 0), (1, 13)]

[(1, 25), (1, 33)]

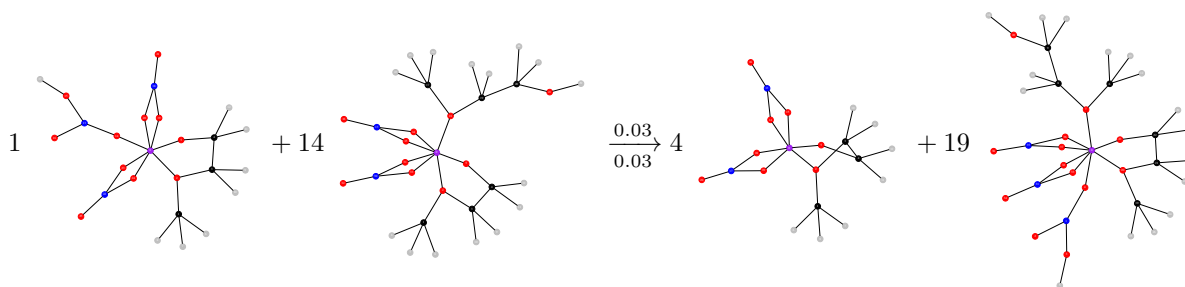
product bonds broken:

[(1, 0), (1, 7)]

[(1, 10), (1, 18)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(1, 0), (1, 18)]

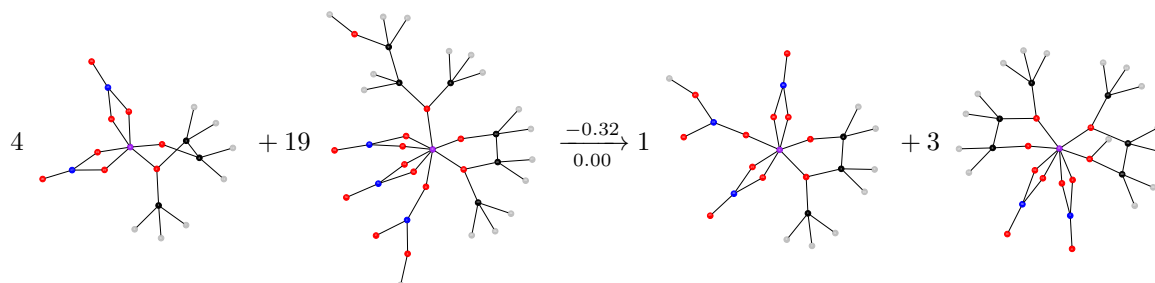
[(1, 1), (1, 8)]

product bonds broken:

[(0, 1), (0, 6)]

[(1, 0), (1, 7)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

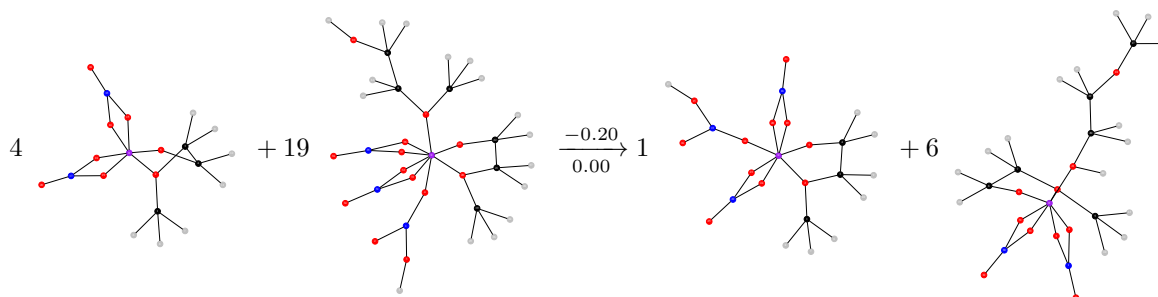
[(1, 0), (1, 4)]

product bonds broken:

[(0, 0), (0, 14)]

[(1, 0), (1, 21)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(1, 0), (1, 7)]

[(1, 3), (1, 5)]

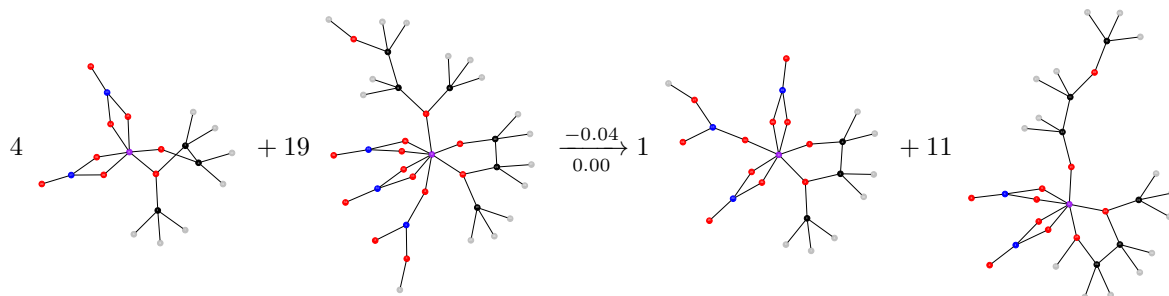
product bonds broken:

[(0, 15), (0, 17)]

[(1, 0), (1, 21)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(1, 0), (1, 7)]

[(1, 10), (1, 18)]

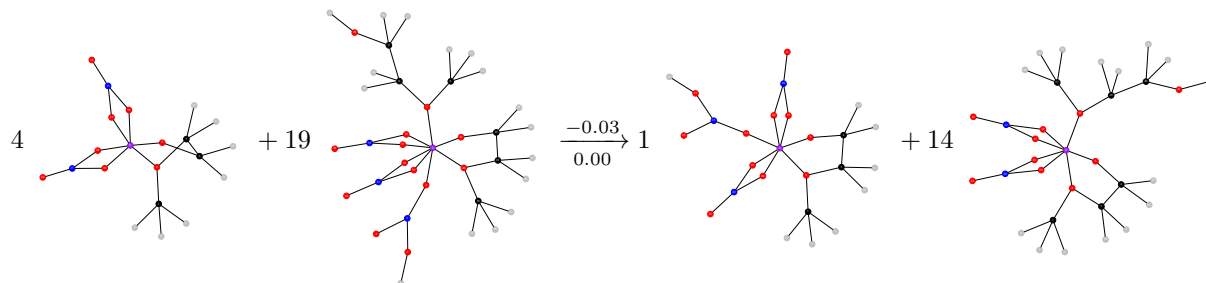
product bonds broken:

[(1, 0), (1, 13)]

[(1, 25), (1, 33)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(1, 0), (1, 4)]

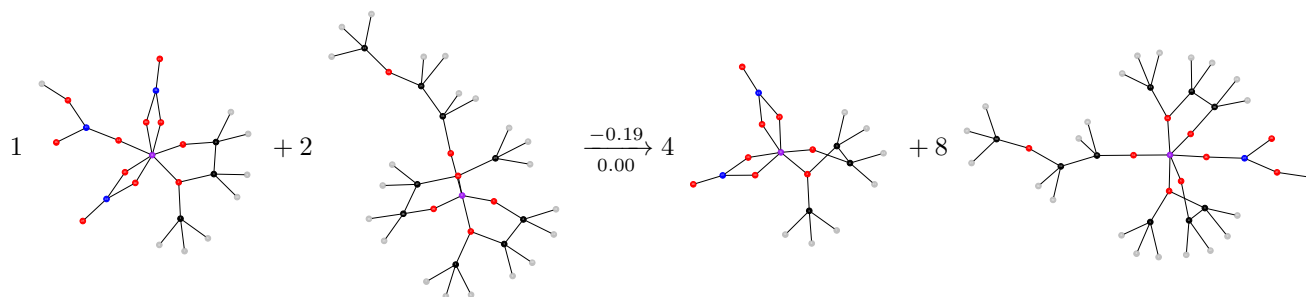
[(1, 3), (1, 5)]

product bonds broken:

[(0, 0), (0, 14)]

[(0, 15), (0, 17)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 14)]

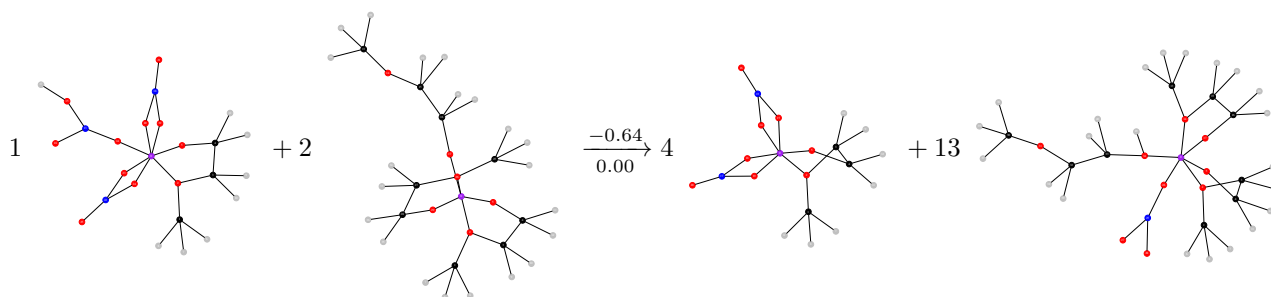
[(1, 1), (1, 8)]

product bonds broken:

[(1, 0), (1, 26)]

[(1, 1), (1, 8)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 14)]

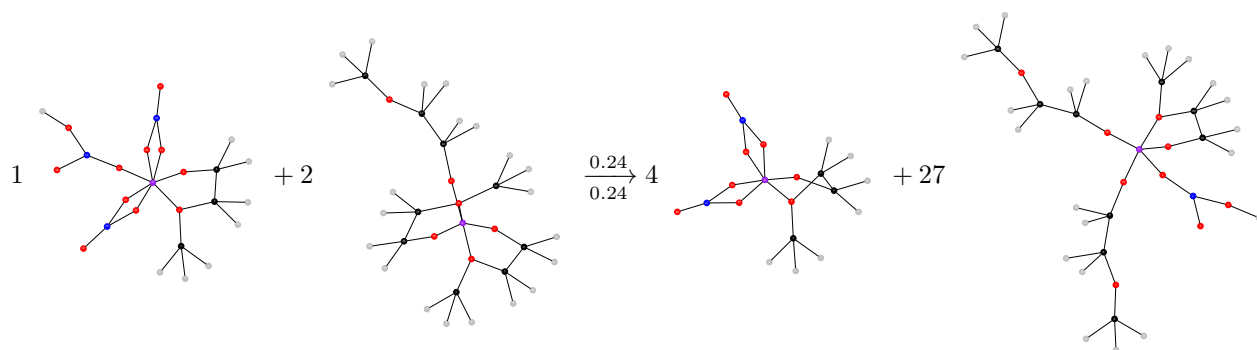
[(0, 15), (0, 17)]

product bonds broken:

[(1, 0), (1, 26)]

[(1, 29), (1, 34)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

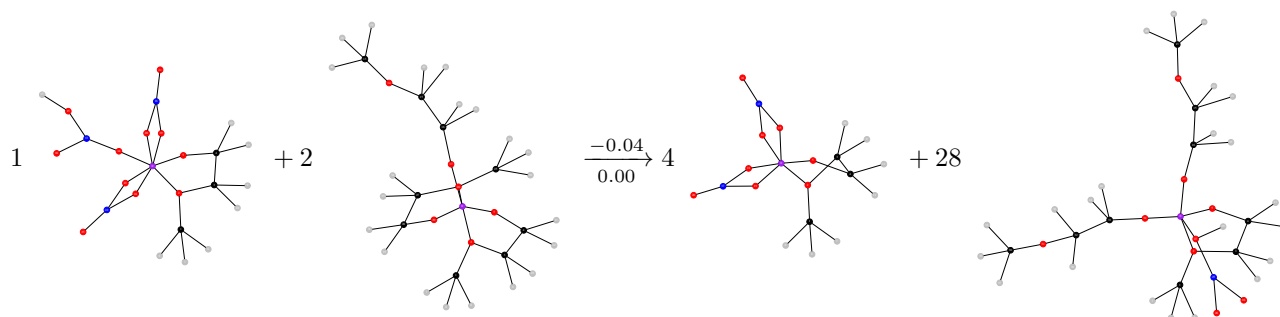
[(0, 0), (0, 14)]

[(1, 0), (1, 2)]

product bonds broken:

[(1, 0), (1, 2)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

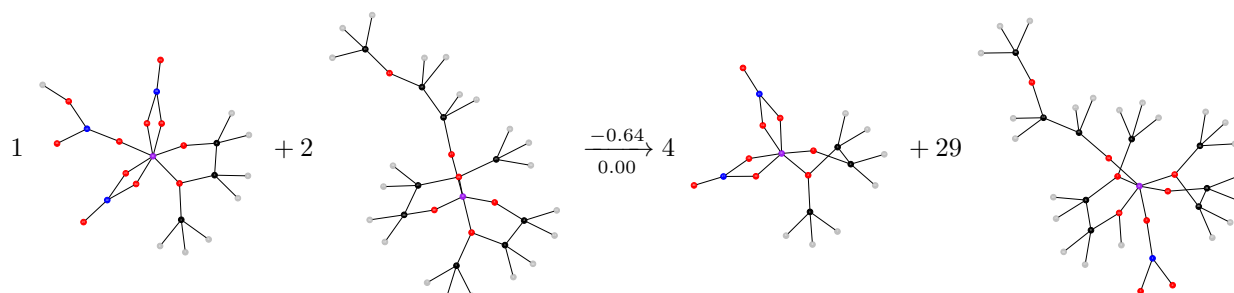
[(0, 0), (0, 14)]

[(1, 0), (1, 2)]

product bonds broken:

[(1, 0), (1, 27)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 14)]

[(0, 15), (0, 17)]

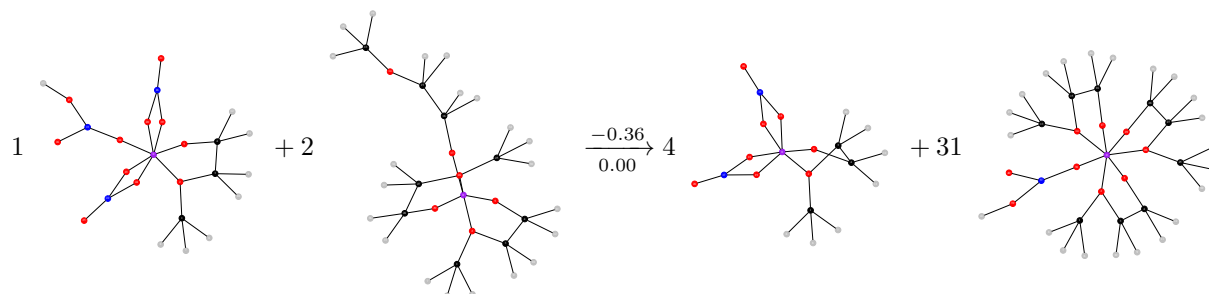
product bonds broken:

[(1, 0), (1, 2)]

[(1, 5), (1, 10)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 14)]

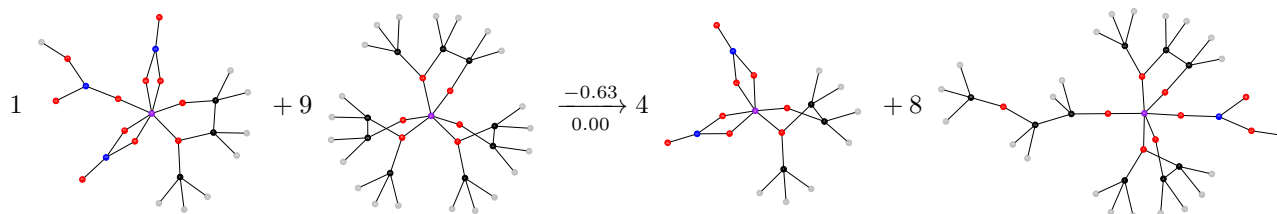
product bonds broken:

[(1, 0), (1, 2)]

[(1, 0), (1, 38)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 14)]

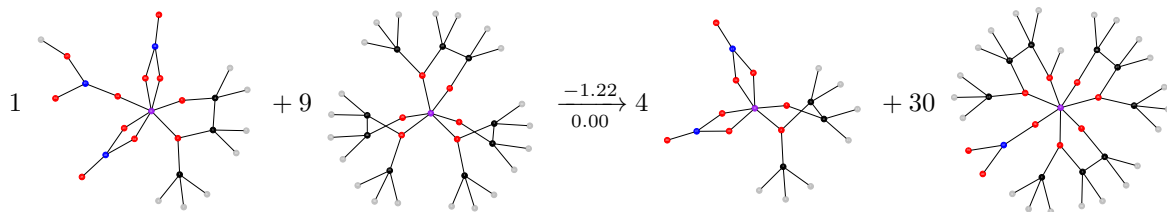
[(1, 0), (1, 2)]

product bonds broken:

[(1, 0), (1, 26)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 14)]

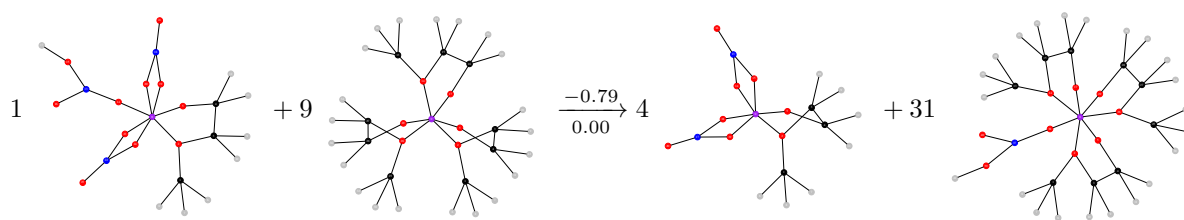
[(0, 15), (0, 17)]

product bonds broken:

[(1, 0), (1, 38)]

[(1, 17), (1, 41)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 14)]

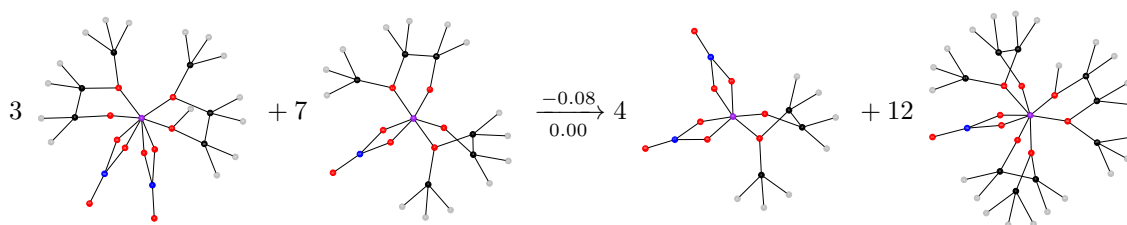
[(1, 1), (1, 8)]

product bonds broken:

[(1, 0), (1, 38)]

[(1, 1), (1, 7)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 18)]

[(0, 0), (0, 21)]

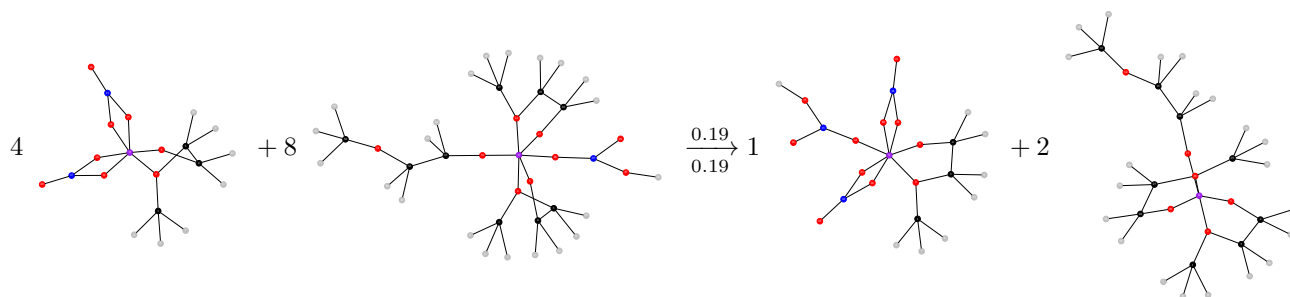
product bonds broken:

[(1, 0), (1, 26)]

[(1, 0), (1, 29)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(1, 0), (1, 26)]

[(1, 1), (1, 8)]

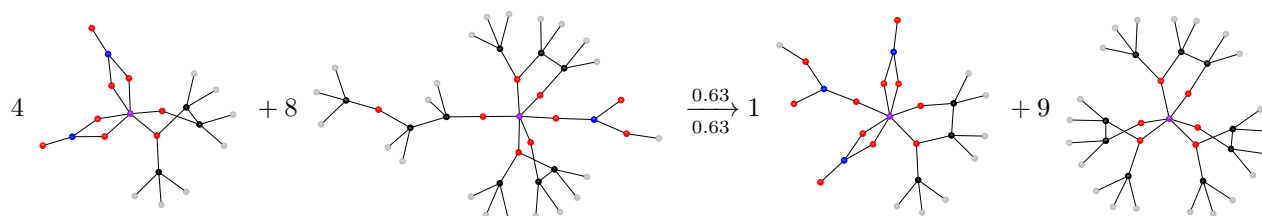
product bonds broken:

[(0, 0), (0, 14)]

[(1, 1), (1, 8)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(1, 0), (1, 26)]

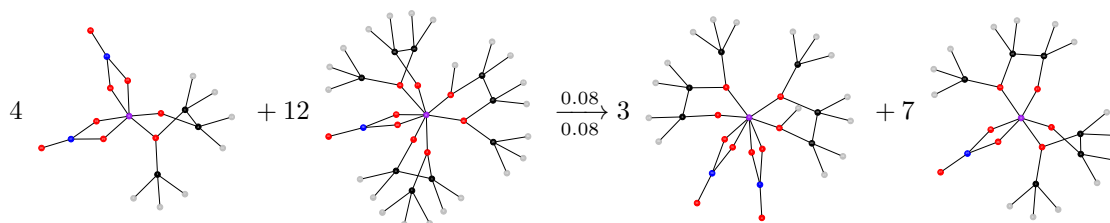
product bonds broken:

[(0, 0), (0, 14)]

[(1, 0), (1, 2)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(1, 0), (1, 26)]

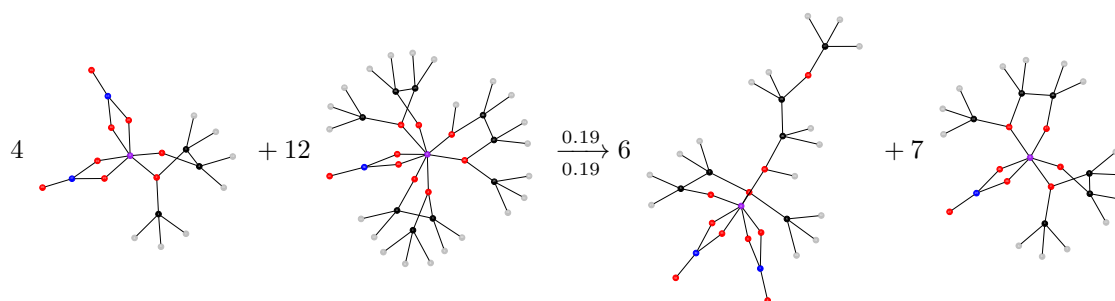
[(1, 0), (1, 29)]

product bonds broken:

[(0, 0), (0, 18)]

[(0, 0), (0, 21)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

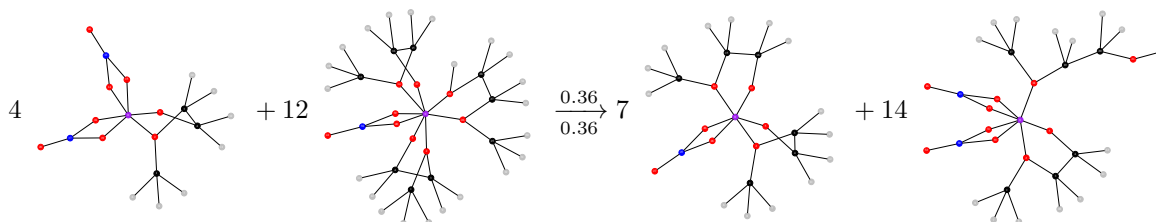
[(1, 0), (1, 26)]

[(1, 0), (1, 29)]

product bonds broken:

[(0, 0), (0, 21)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

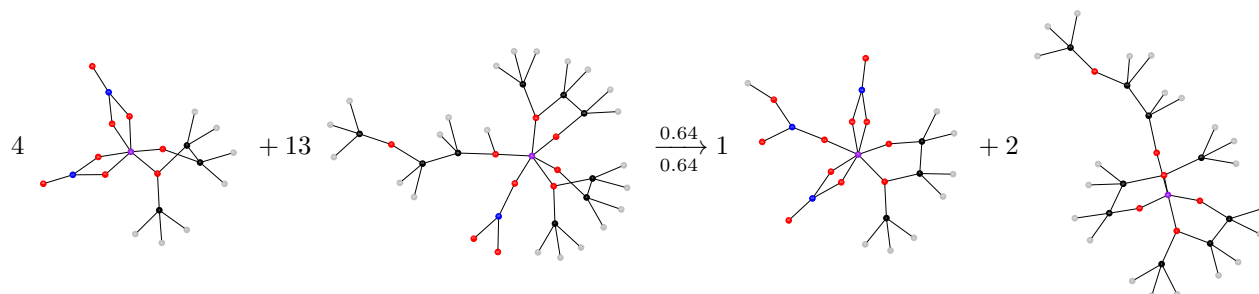
[(1, 0), (1, 26)]

[(1, 0), (1, 29)]

product bonds broken:

[(1, 0), (1, 18)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(1, 0), (1, 26)]

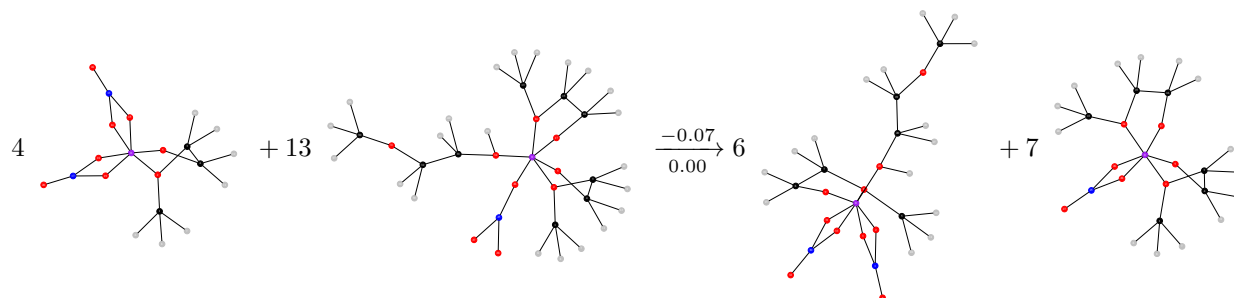
[(1, 29), (1, 34)]

product bonds broken:

[(0, 0), (0, 14)]

[(0, 15), (0, 17)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

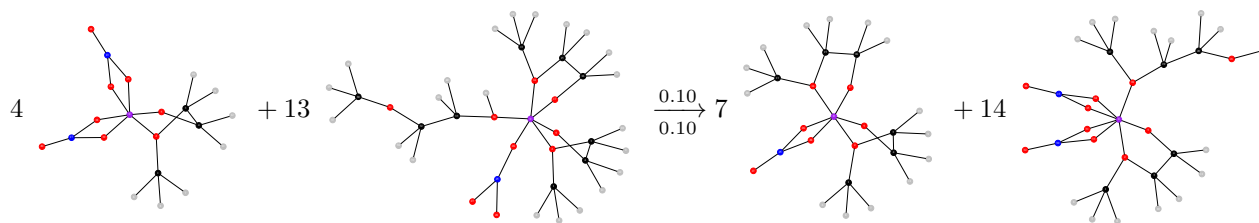
[(1, 0), (1, 34)]

product bonds broken:

[(0, 0), (0, 21)]

[(1, 0), (1, 26)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

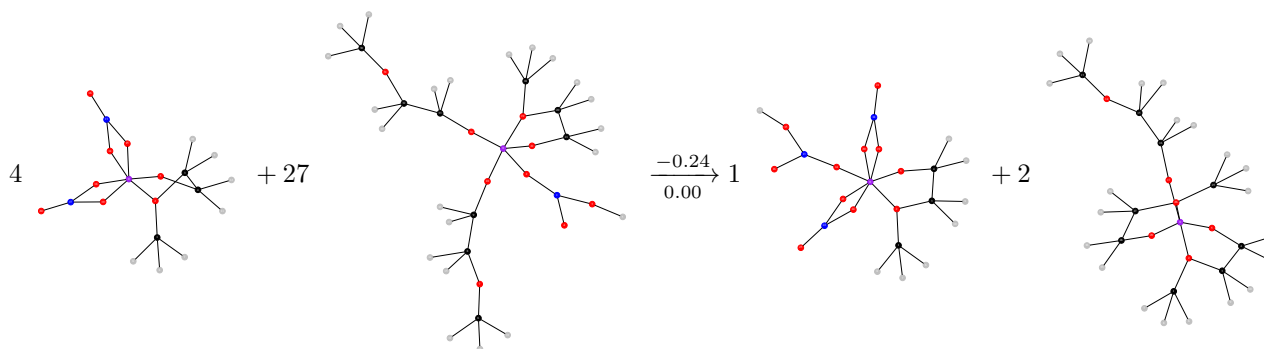
[(1, 0), (1, 34)]

product bonds broken:

[(0, 0), (0, 26)]

[(1, 0), (1, 18)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

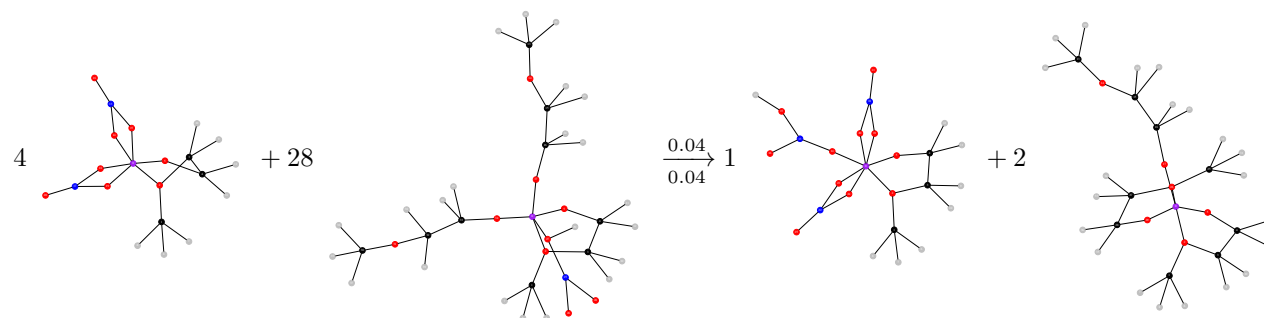
[(1, 0), (1, 2)]

product bonds broken:

[(0, 0), (0, 14)]

[(1, 0), (1, 2)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(1, 0), (1, 27)]

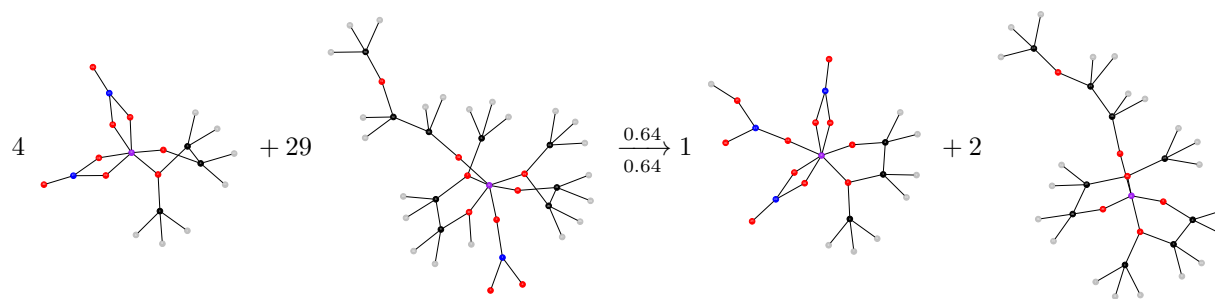
product bonds broken:

[(0, 0), (0, 14)]

[(1, 0), (1, 2)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(1, 0), (1, 2)]

[(1, 5), (1, 10)]

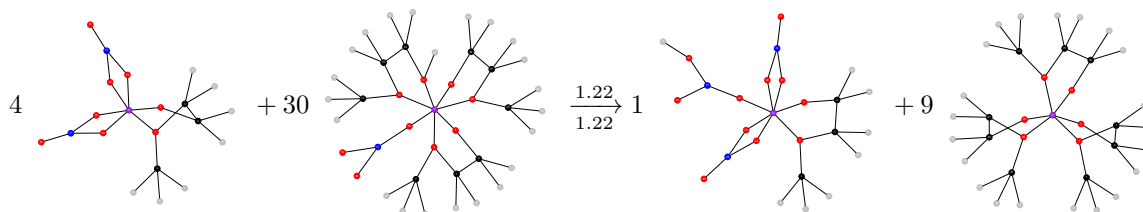
product bonds broken:

[(0, 0), (0, 14)]

[(0, 15), (0, 17)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(1, 0), (1, 38)]

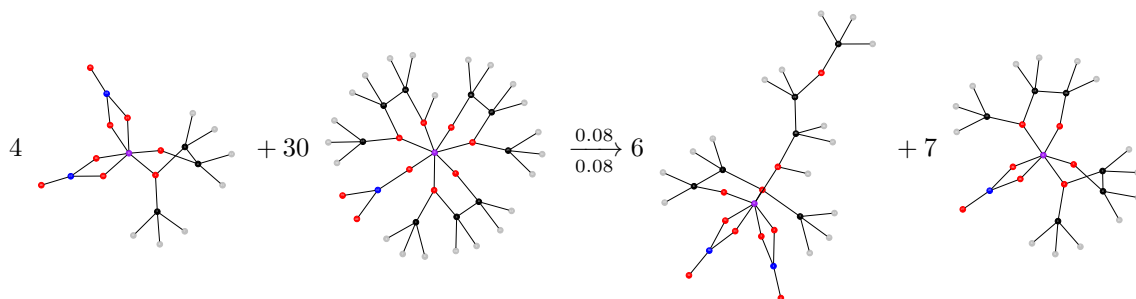
[(1, 17), (1, 41)]

product bonds broken:

[(0, 0), (0, 14)]

[(0, 15), (0, 17)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(1, 0), (1, 14)]

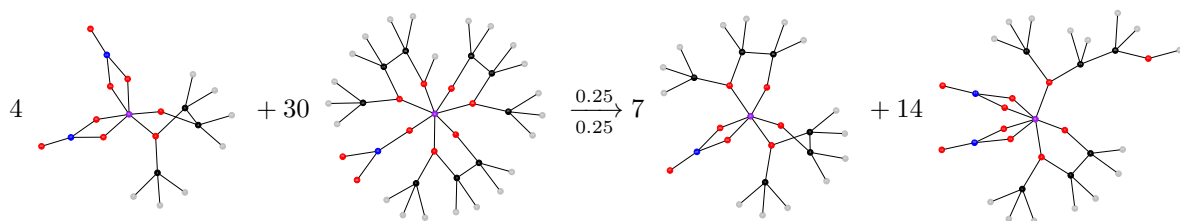
[(1, 0), (1, 17)]

product bonds broken:

[(0, 0), (0, 21)]

[(1, 0), (1, 26)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(1, 0), (1, 14)]

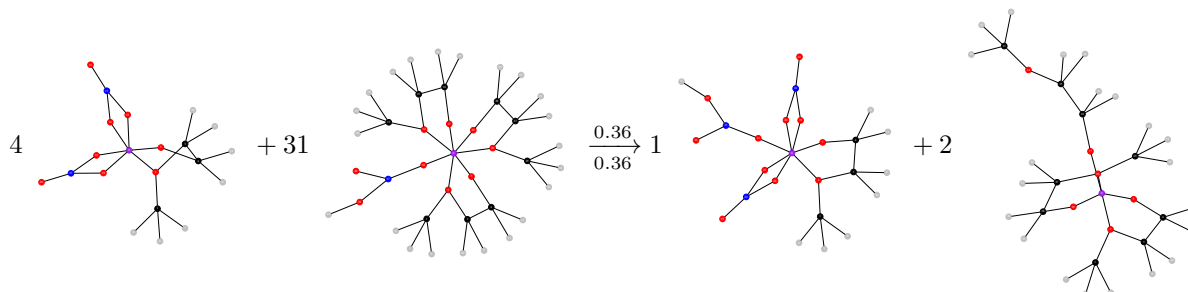
[(1, 0), (1, 17)]

product bonds broken:

[(0, 0), (0, 26)]

[(1, 0), (1, 18)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(1, 0), (1, 2)]

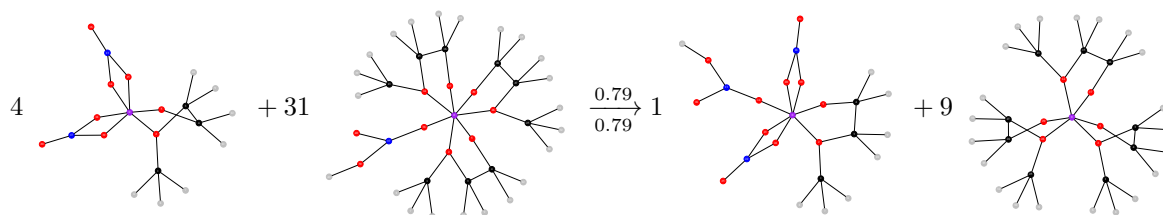
[(1, 0), (1, 38)]

product bonds broken:

[(0, 0), (0, 14)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(1, 0), (1, 38)]

[(1, 1), (1, 7)]

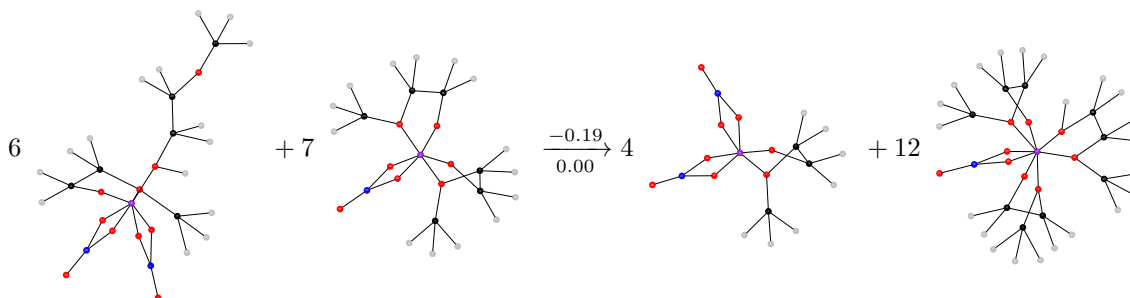
product bonds broken:

[(0, 0), (0, 14)]

[(1, 1), (1, 8)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 21)]

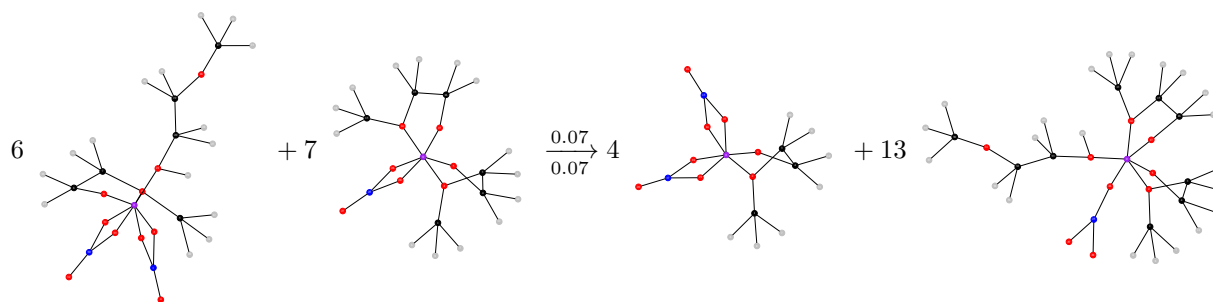
product bonds broken:

[(1, 0), (1, 26)]

[(1, 0), (1, 29)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 21)]

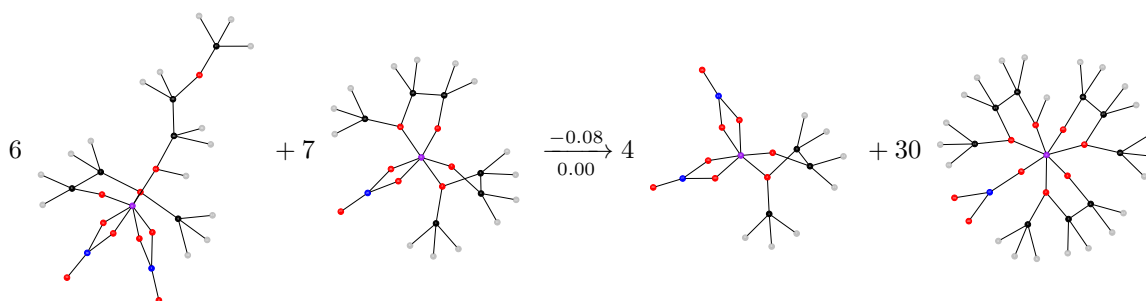
[(1, 0), (1, 26)]

product bonds broken:

[(1, 0), (1, 34)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 21)]

[(1, 0), (1, 26)]

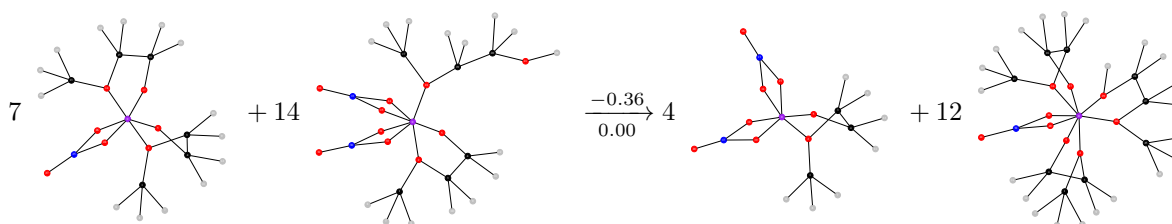
product bonds broken:

[(1, 0), (1, 14)]

[(1, 0), (1, 17)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(1, 0), (1, 18)]

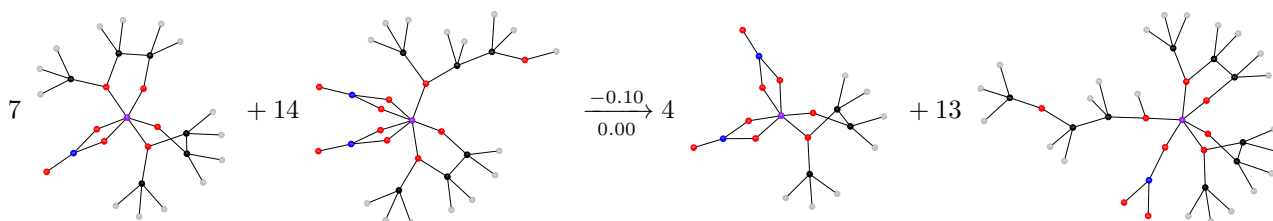
product bonds broken:

[(1, 0), (1, 26)]

[(1, 0), (1, 29)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 26)]

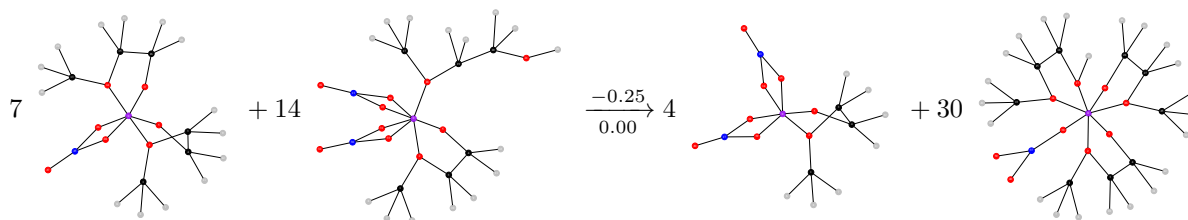
[(1, 0), (1, 18)]

product bonds broken:

[(1, 0), (1, 34)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 26)]

[(1, 0), (1, 18)]

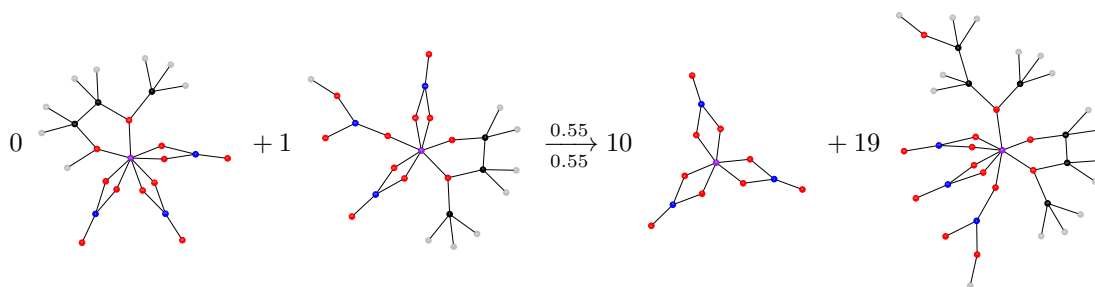
product bonds broken:

[(1, 0), (1, 14)]

[(1, 0), (1, 17)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

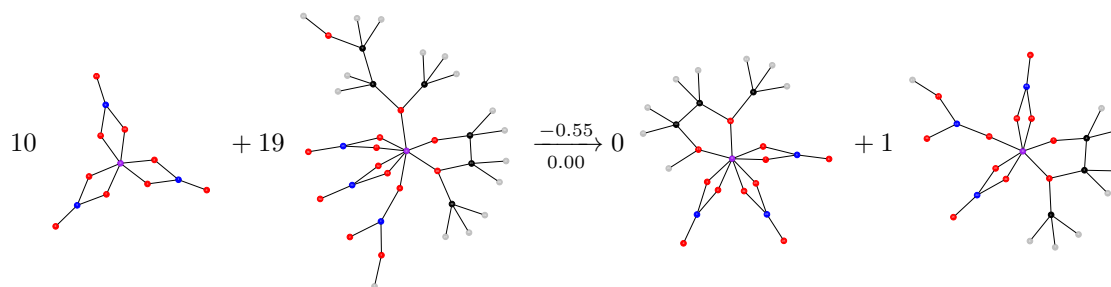
[(0, 0), (0, 10)]

[(0, 0), (0, 13)]

product bonds broken:

[(1, 0), (1, 7)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

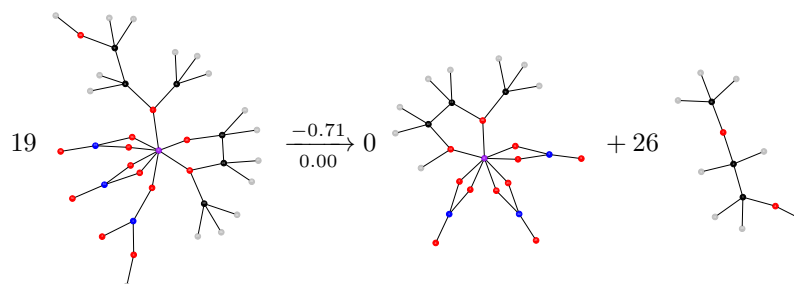
[(1, 0), (1, 7)]

product bonds broken:

[(0, 0), (0, 10)]

[(0, 0), (0, 13)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 7)]

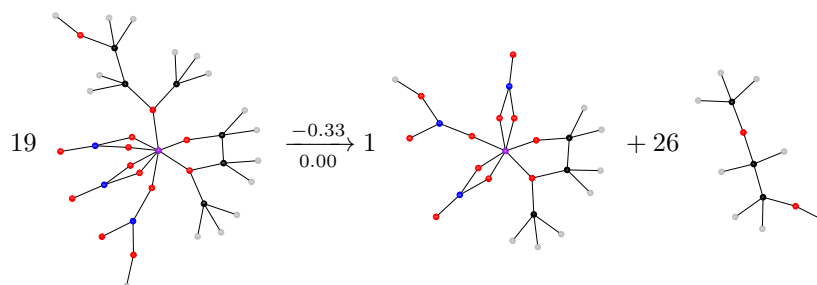
[(0, 3), (0, 5)]

product bonds broken:

[(0, 0), (0, 3)]

[(0, 13), (0, 21)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

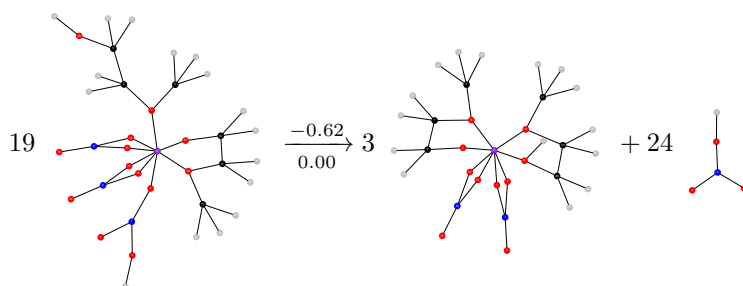
[(0, 0), (0, 7)]

[(0, 3), (0, 5)]

product bonds broken:

[(0, 15), (0, 17)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 4)]

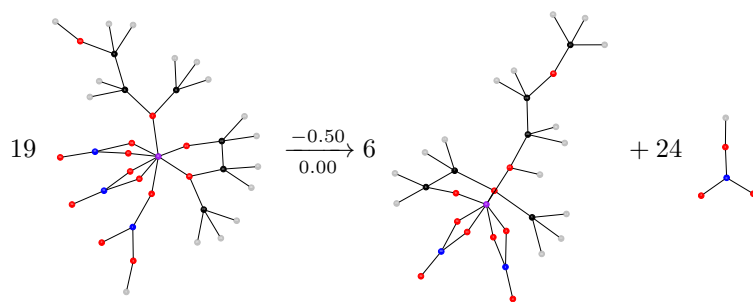
[(0, 3), (0, 5)]

product bonds broken:

[(0, 0), (0, 21)]

[(1, 3), (1, 4)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

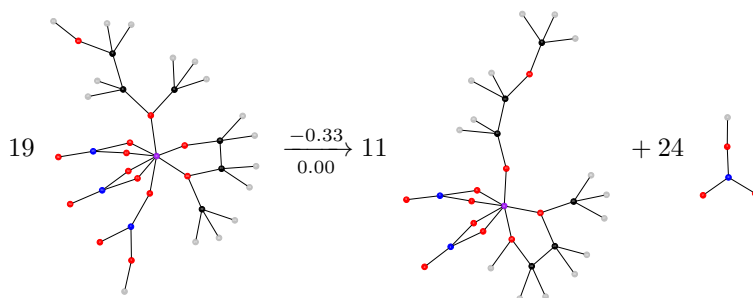
[(0, 0), (0, 4)]

[(0, 0), (0, 7)]

product bonds broken:

[(0, 0), (0, 21)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

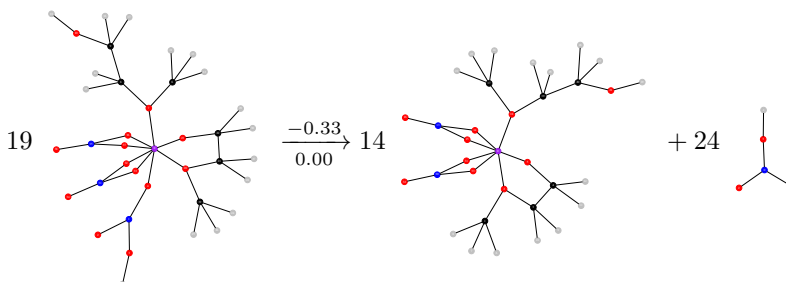
[(0, 0), (0, 4)]

[(0, 0), (0, 20)]

product bonds broken:

[(0, 0), (0, 25)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 4)]

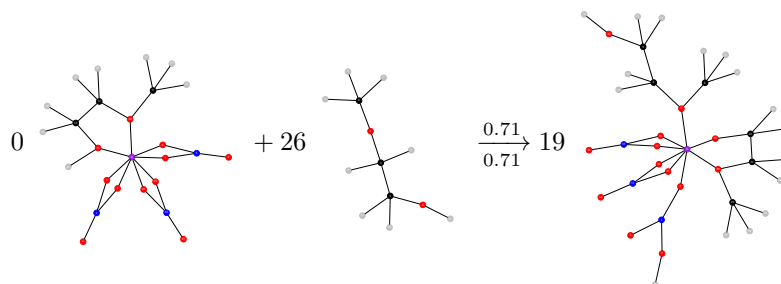
[(0, 3), (0, 5)]

product bonds broken:

[(1, 3), (1, 4)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 3)]

[(0, 13), (0, 21)]

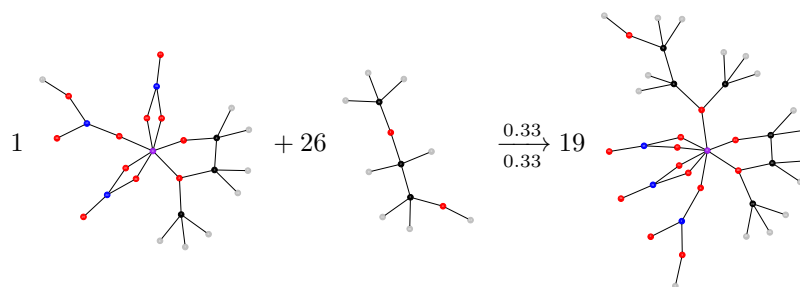
product bonds broken:

[(0, 0), (0, 7)]

[(0, 3), (0, 5)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

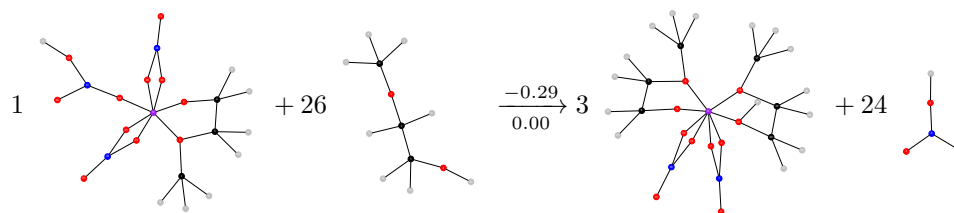
[(1, 0), (1, 7)]

product bonds broken:

[(0, 0), (0, 7)]

[(0, 6), (0, 13)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

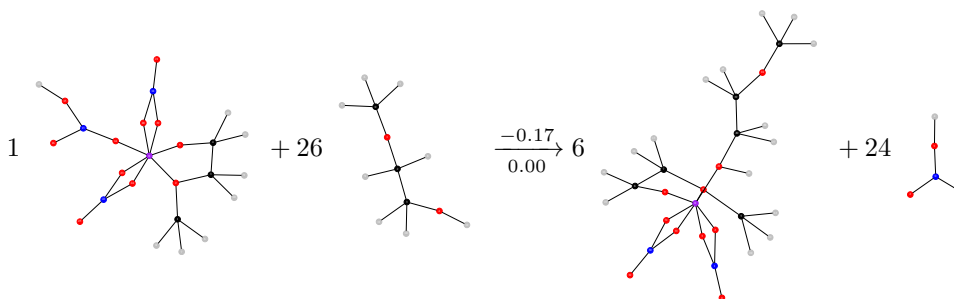
[(0, 0), (0, 14)]

product bonds broken:

[(0, 0), (0, 18)]

[(0, 0), (0, 21)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 14)]

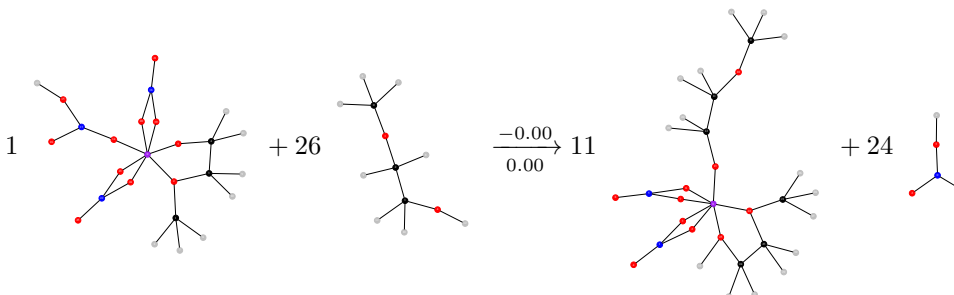
[(1, 0), (1, 7)]

product bonds broken:

[(0, 0), (0, 21)]

[(0, 17), (0, 23)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 14)]

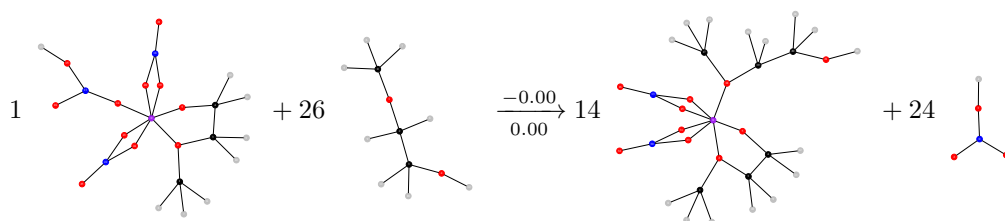
[(1, 4), (1, 12)]

product bonds broken:

[(0, 0), (0, 13)]

[(0, 25), (0, 33)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 14)]

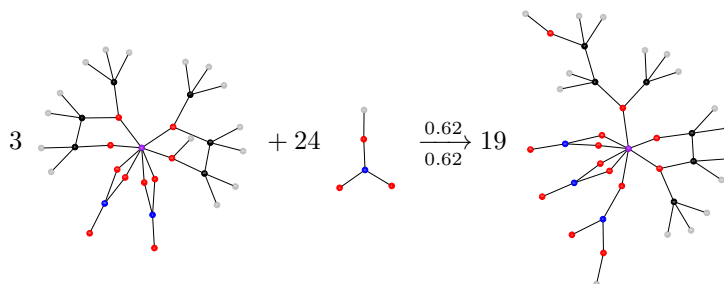
[(1, 0), (1, 7)]

product bonds broken:

[(0, 0), (0, 18)]

[(0, 17), (0, 23)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 21)]

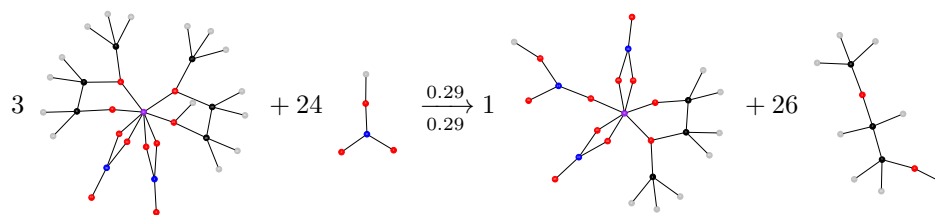
[(1, 3), (1, 4)]

product bonds broken:

[(0, 0), (0, 4)]

[(0, 3), (0, 5)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

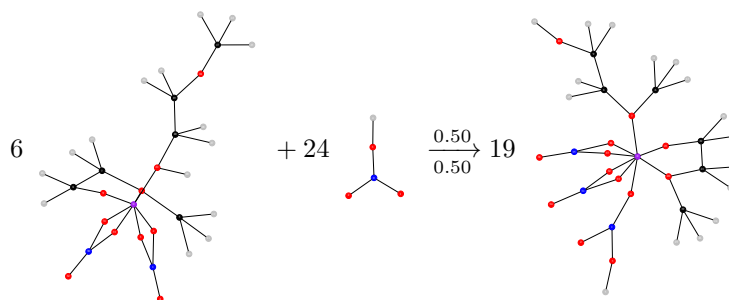
[(0, 0), (0, 18)]

[(0, 0), (0, 21)]

product bonds broken:

[(0, 0), (0, 14)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

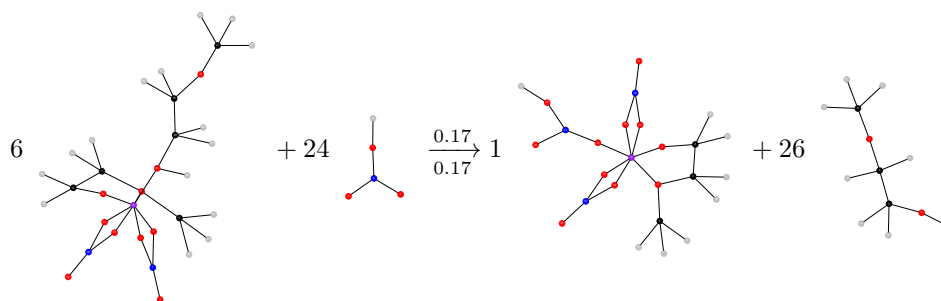
[(0, 0), (0, 21)]

product bonds broken:

[(0, 0), (0, 4)]

[(0, 0), (0, 7)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 21)]

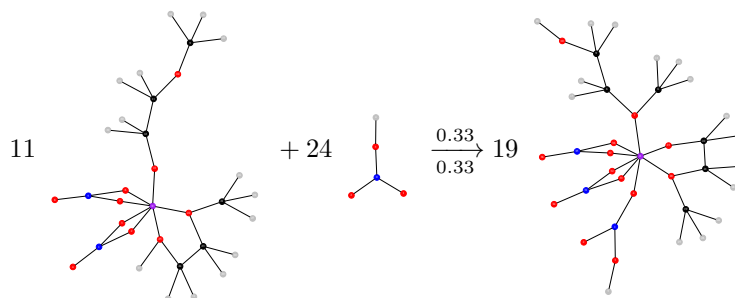
[(1, 3), (1, 4)]

product bonds broken:

[(0, 0), (0, 14)]

[(0, 15), (0, 17)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

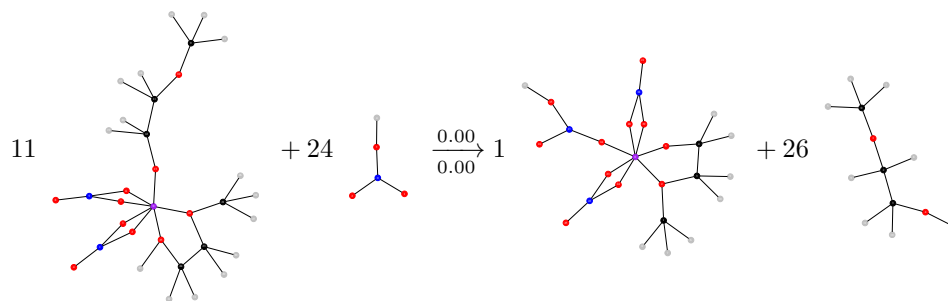
[(0, 0), (0, 25)]

product bonds broken:

[(0, 0), (0, 4)]

[(0, 0), (0, 20)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 13)]

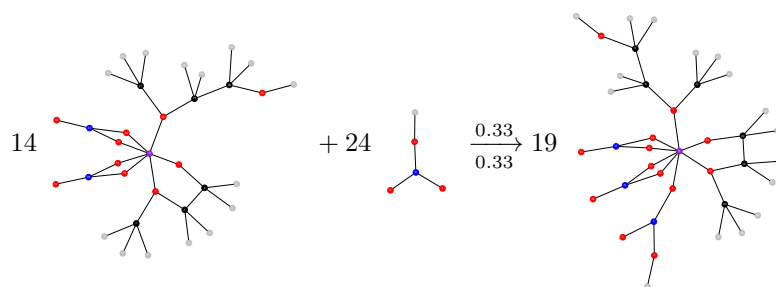
[(0, 25), (0, 33)]

product bonds broken:

[(0, 0), (0, 14)]

[(1, 4), (1, 12)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

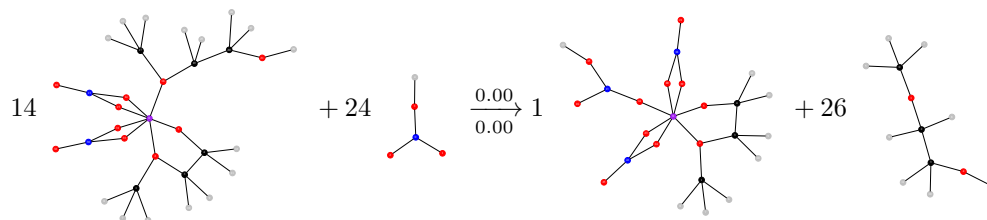
[(1, 3), (1, 4)]

product bonds broken:

[(0, 0), (0, 4)]

[(0, 3), (0, 5)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 18)]

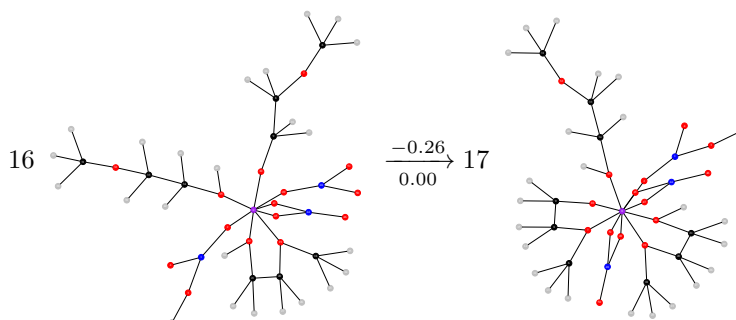
[(1, 3), (1, 4)]

product bonds broken:

[(0, 0), (0, 14)]

[(0, 15), (0, 17)]

fragment matching found
Terminal.KEEP

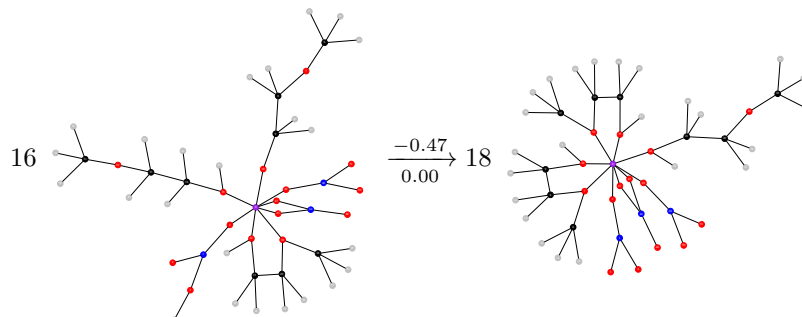


reactant bonds broken:product bonds broken:

[(0, 0), (0, 51)]

[(0, 0), (0, 7)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

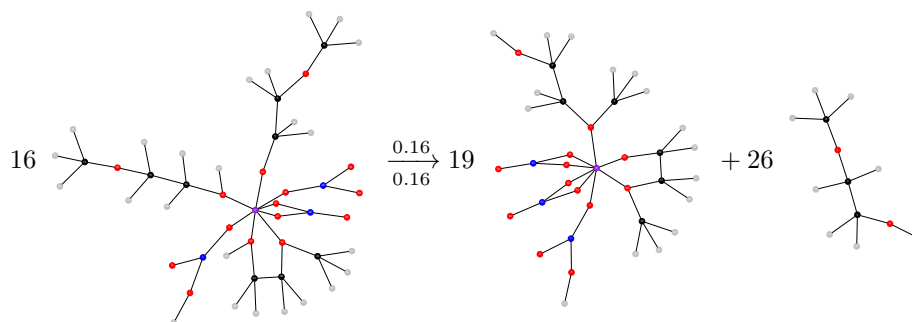
[(0, 3), (0, 5)]

product bonds broken:

[(0, 0), (0, 7)]

[(0, 5), (0, 10)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 22)]

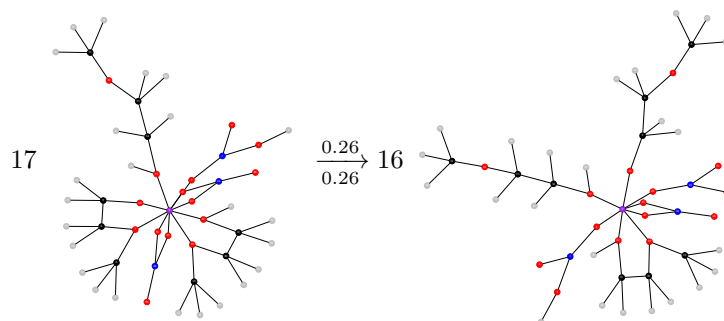
[(0, 0), (0, 35)]

product bonds broken:

[(0, 0), (0, 32)]

[(0, 0), (0, 20)]

fragment matching found
Terminal.KEEP



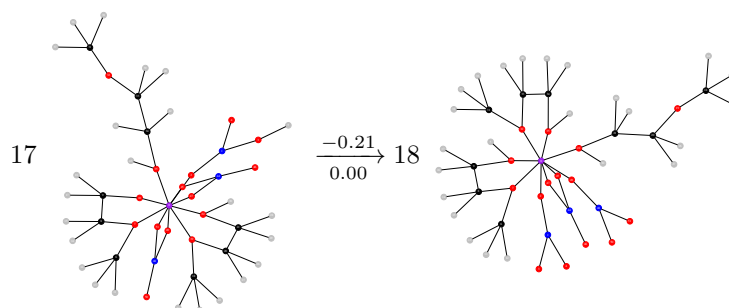
reactant bonds broken:

[(0, 0), (0, 51)]

[(0, 0), (0, 7)]

product bonds broken:

fragment matching found
Terminal.KEEP



reactant bonds broken:

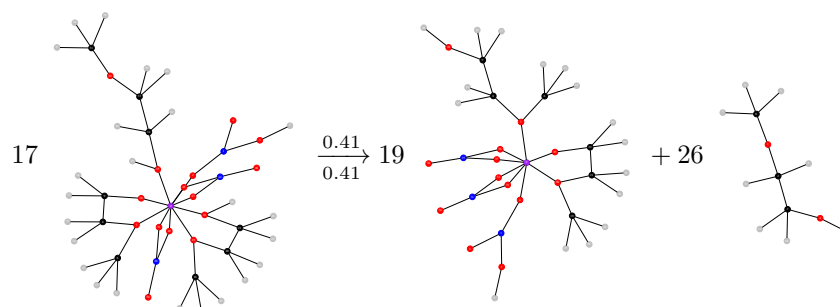
[(0, 0), (0, 51)]

[(0, 3), (0, 5)]

product bonds broken:

[(0, 5), (0, 10)]

fragment matching found
Terminal.KEEP



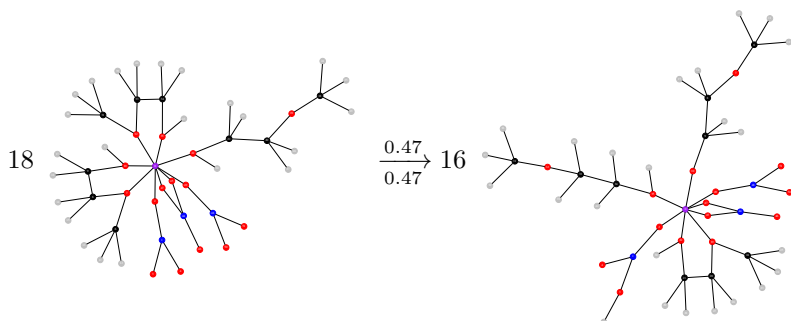
reactant bonds broken:

[(0, 0), (0, 22)]

[(0, 0), (0, 35)]

product bonds broken:

fragment matching found
Terminal.KEEP



reactant bonds broken:

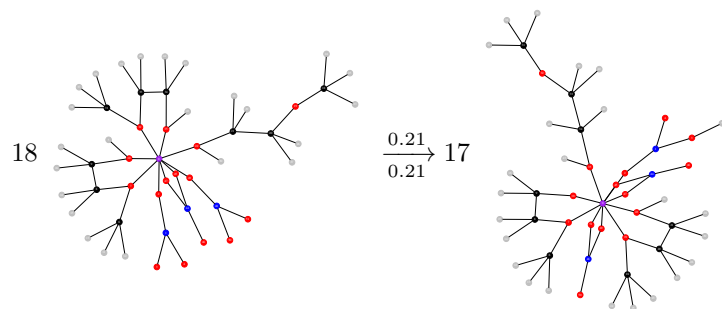
[(0, 0), (0, 7)]

[(0, 5), (0, 10)]

product bonds broken:

[(0, 3), (0, 5)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

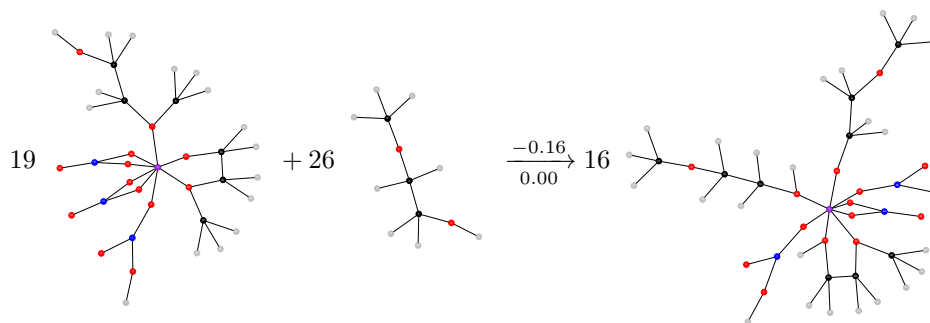
[(0, 5), (0, 10)]

product bonds broken:

[(0, 0), (0, 51)]

[(0, 3), (0, 5)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 32)]

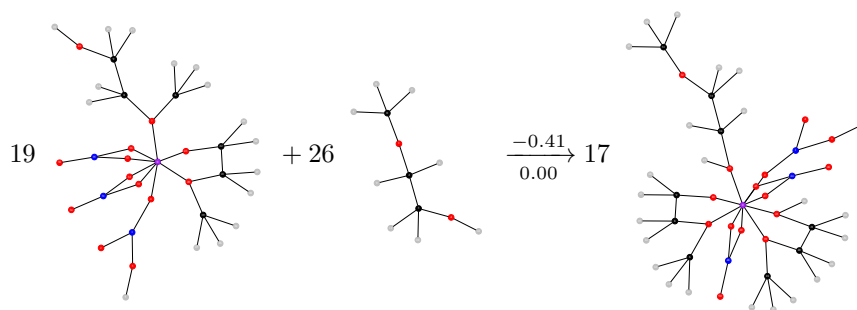
[(0, 0), (0, 20)]

product bonds broken:

[(0, 0), (0, 22)]

[(0, 0), (0, 35)]

fragment matching found
Terminal.KEEP

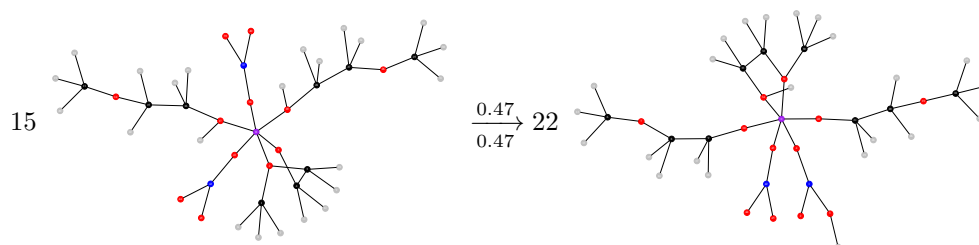


reactant bonds broken:product bonds broken:

[(0, 0), (0, 22)]

[(0, 0), (0, 35)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 2)]

[(0, 17), (0, 46)]

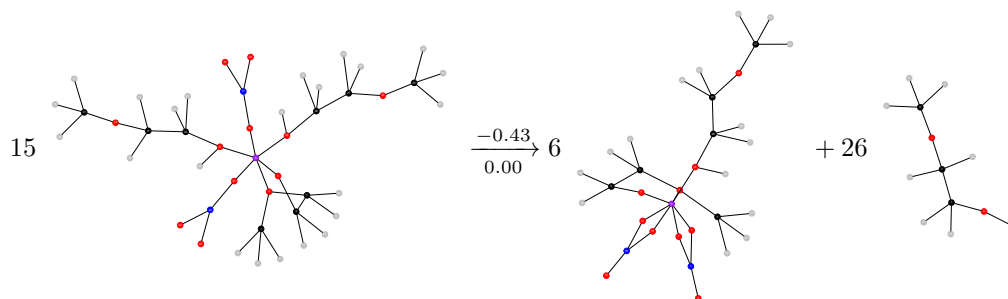
product bonds broken:

[(0, 0), (0, 31)]

[(0, 3), (0, 5)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 17)]

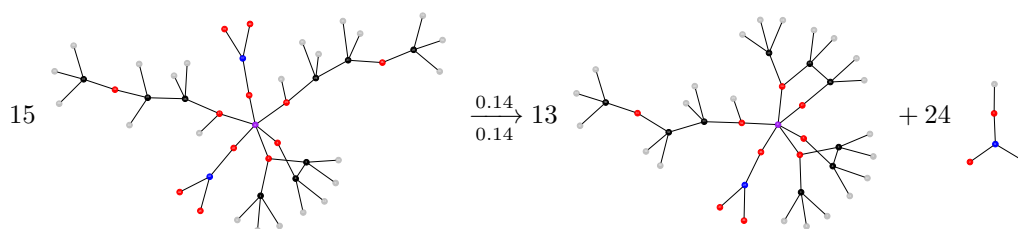
product bonds broken:

[(0, 0), (0, 33)]

[(0, 0), (0, 2)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 38)]

[(0, 17), (0, 46)]

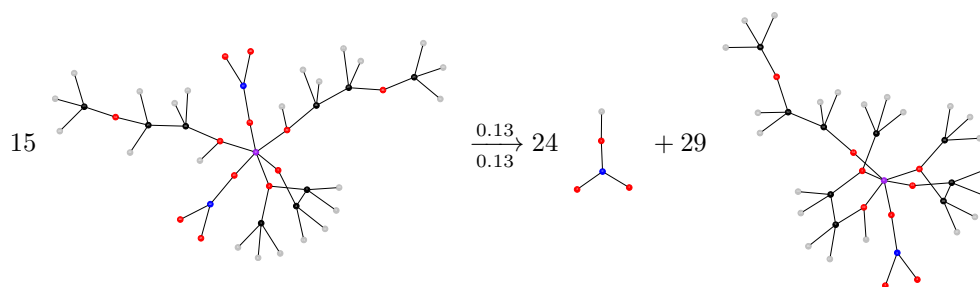
product bonds broken:

[(0, 0), (0, 2)]

[(1, 3), (1, 4)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 38)]

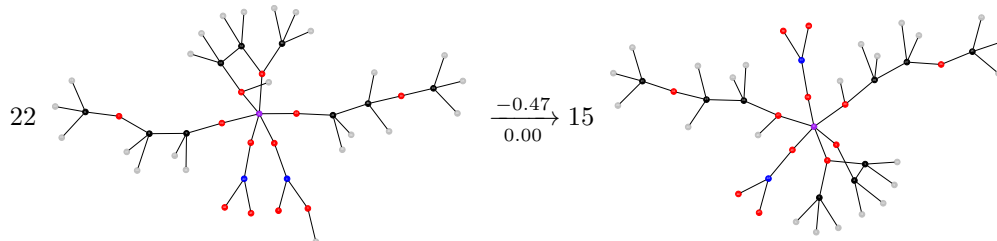
[(0, 17), (0, 46)]

product bonds broken:

[(0, 3), (0, 4)]

[(1, 0), (1, 7)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 31)]

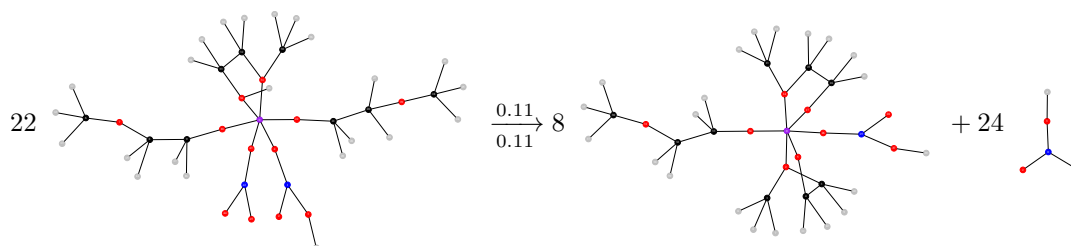
[(0, 3), (0, 5)]

product bonds broken:

[(0, 0), (0, 2)]

[(0, 17), (0, 46)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 4)]

[(0, 34), (0, 46)]

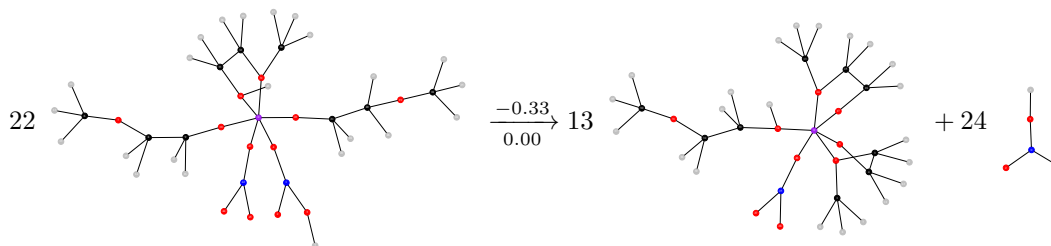
product bonds broken:

[(0, 0), (0, 2)]

[(0, 27), (0, 29)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 4)]

[(0, 34), (0, 46)]

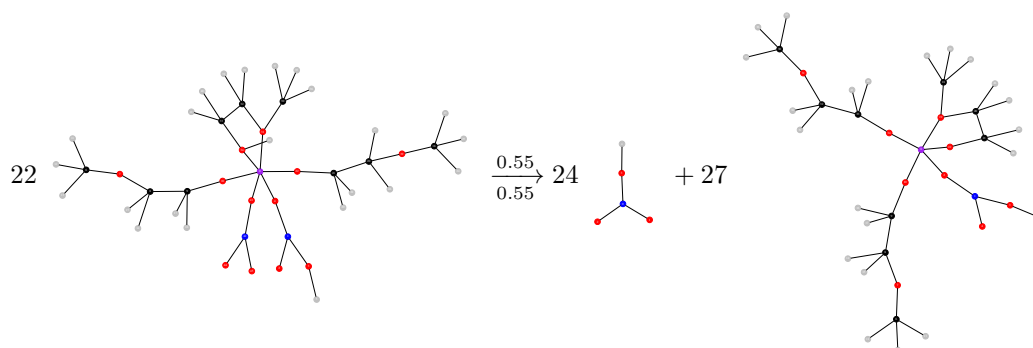
product bonds broken:

[(0, 0), (0, 2)]

[(0, 29), (0, 34)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

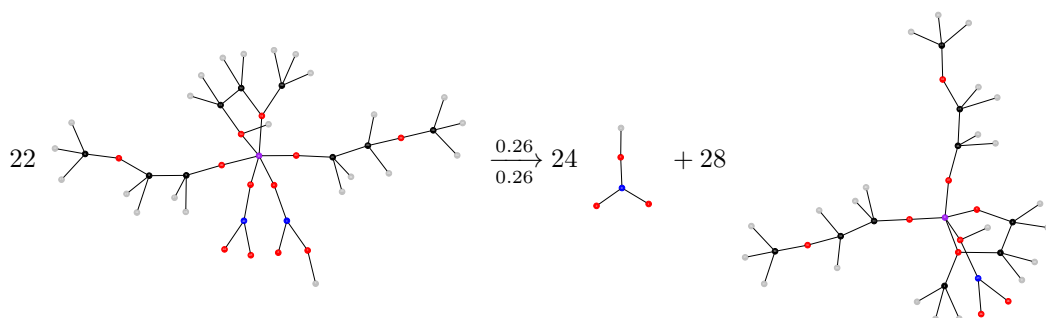
[(0, 0), (0, 4)]

[(0, 34), (0, 46)]

product bonds broken:

[(1, 3), (1, 5)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

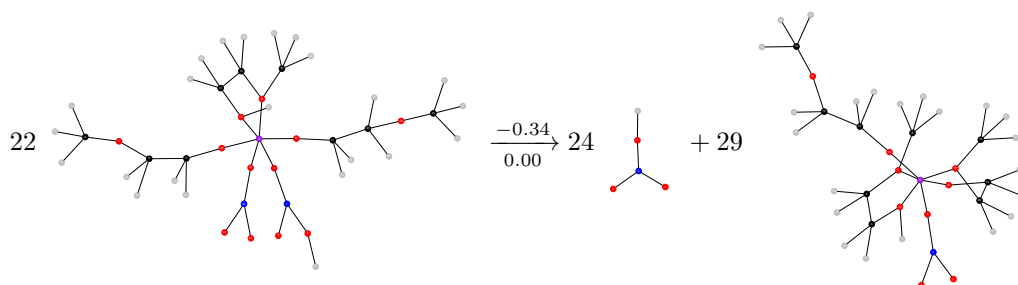
[(0, 0), (0, 4)]

[(0, 34), (0, 46)]

product bonds broken:

[(1, 27), (1, 29)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 4)]

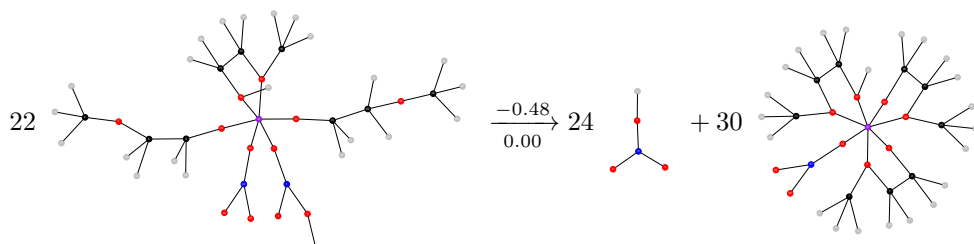
[(0, 3), (0, 5)]

product bonds broken:

[(0, 3), (0, 4)]

[(1, 0), (1, 19)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 4)]

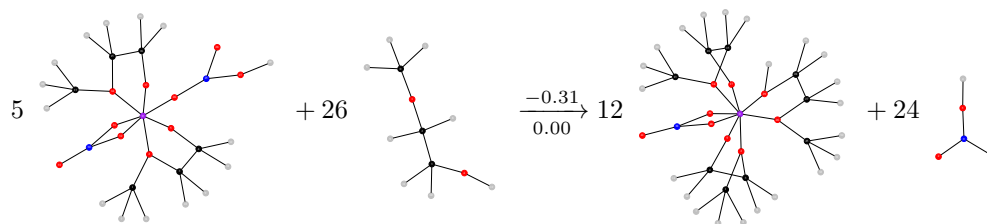
product bonds broken:

[(1, 0), (1, 2)]

[(1, 0), (1, 26)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 26)]

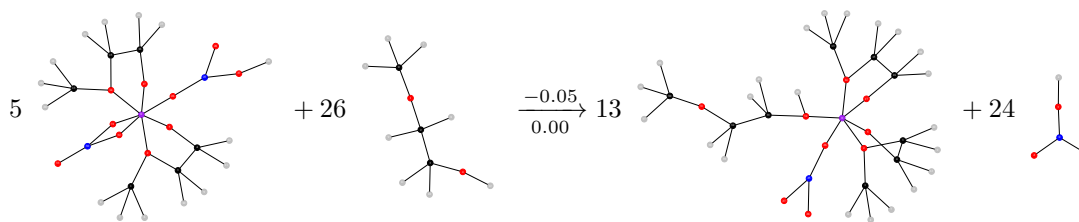
product bonds broken:

[(0, 0), (0, 26)]

[(0, 0), (0, 29)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 32)]

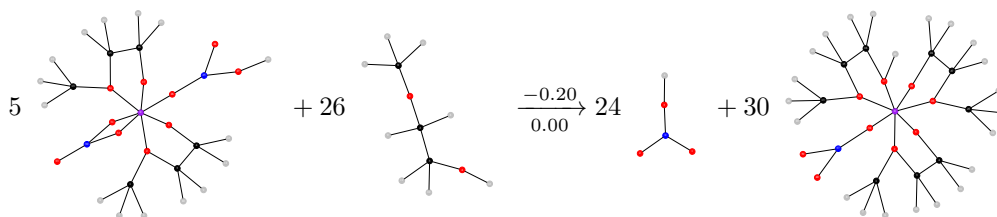
[(0, 0), (0, 26)]

product bonds broken:

[(0, 0), (0, 34)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 32)]

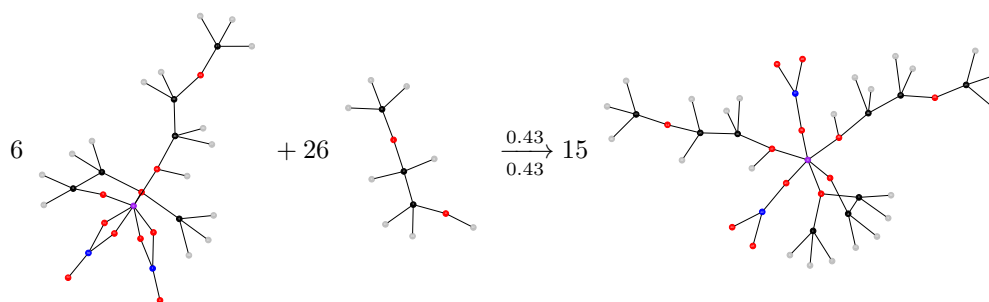
[(0, 0), (0, 26)]

product bonds broken:

[(1, 0), (1, 14)]

[(1, 0), (1, 17)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

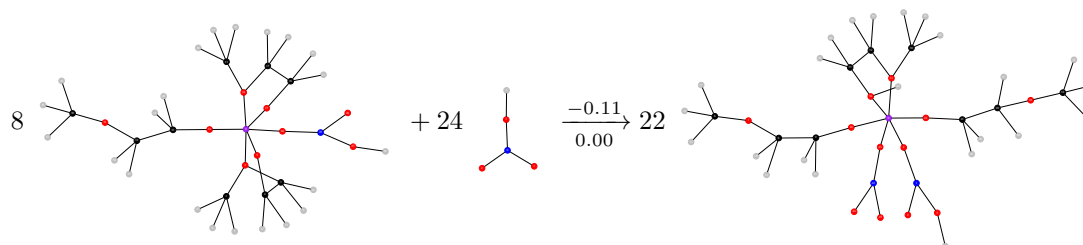
[(0, 0), (0, 33)]

[(0, 0), (0, 2)]

product bonds broken:

[(0, 0), (0, 17)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 2)]

[(1, 3), (1, 4)]

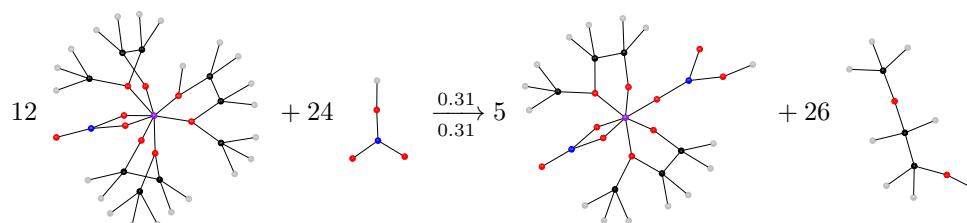
product bonds broken:

[(0, 0), (0, 43)]

[(0, 34), (0, 46)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 26)]

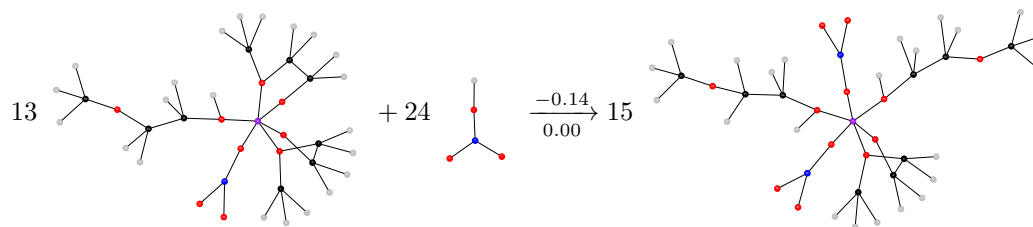
[(0, 0), (0, 29)]

product bonds broken:

[(0, 0), (0, 26)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 2)]

[(1, 3), (1, 4)]

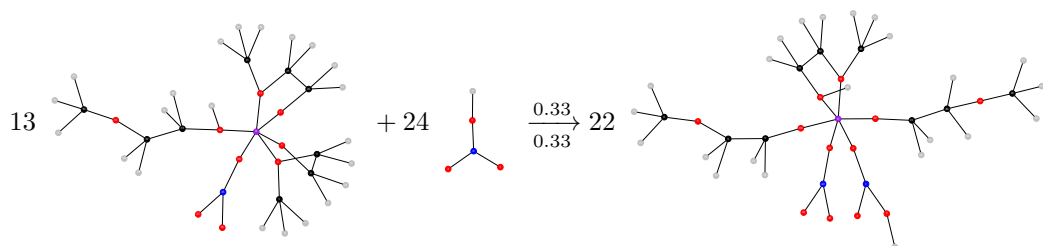
product bonds broken:

[(0, 0), (0, 38)]

[(0, 17), (0, 46)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 2)]

[(0, 29), (0, 34)]

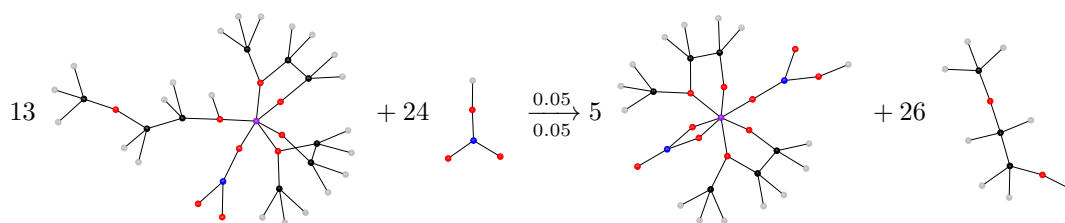
product bonds broken:

[(0, 0), (0, 4)]

[(0, 34), (0, 46)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 34)]

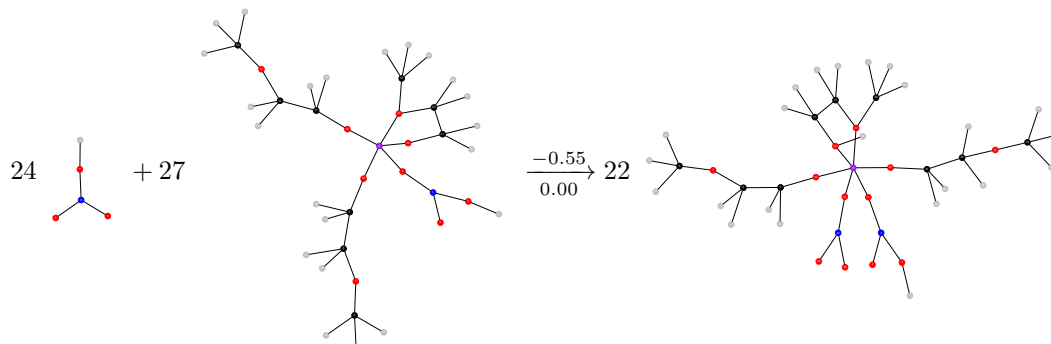
product bonds broken:

[(0, 0), (0, 32)]

[(0, 0), (0, 26)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(1, 3), (1, 5)]

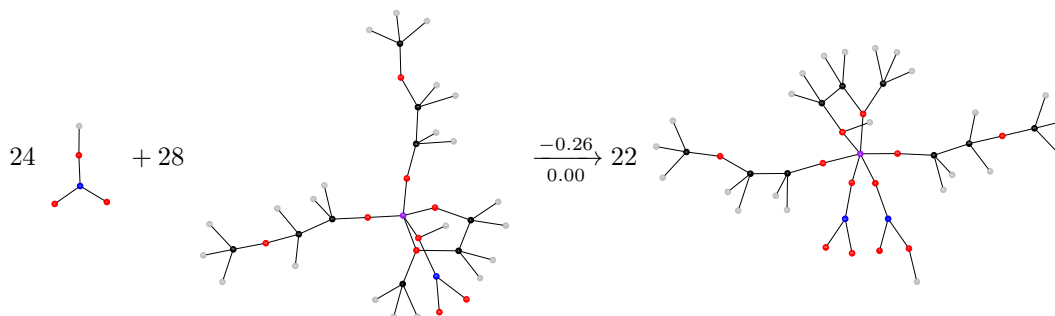
product bonds broken:

[(0, 0), (0, 4)]

[(0, 34), (0, 46)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(1, 27), (1, 29)]

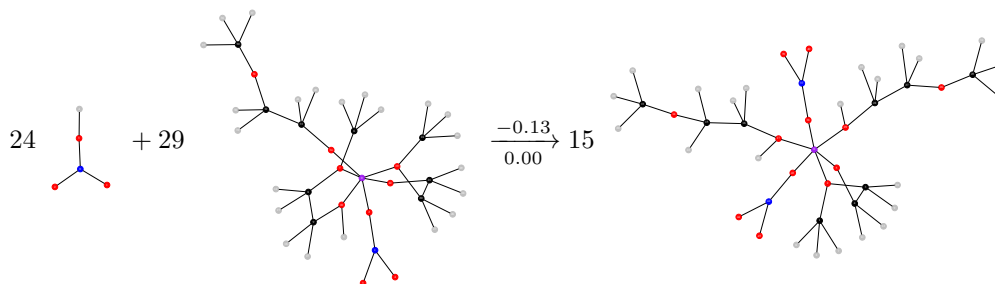
product bonds broken:

[(0, 0), (0, 4)]

[(0, 34), (0, 46)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(0, 3), (0, 4)]

[(1, 0), (1, 7)]

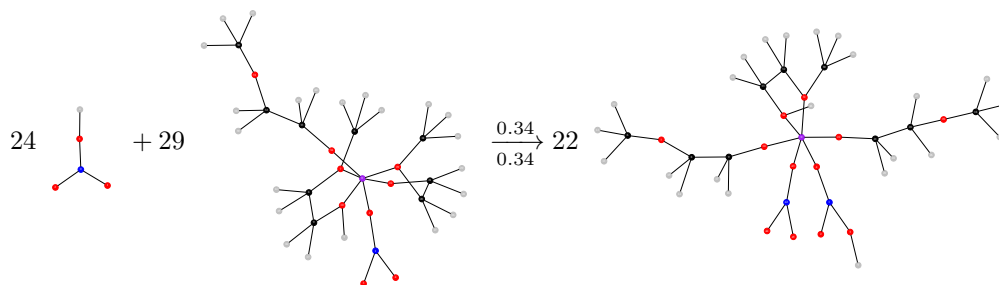
product bonds broken:

[(0, 0), (0, 38)]

[(0, 17), (0, 46)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(1, 0), (1, 7)]

[(1, 5), (1, 10)]

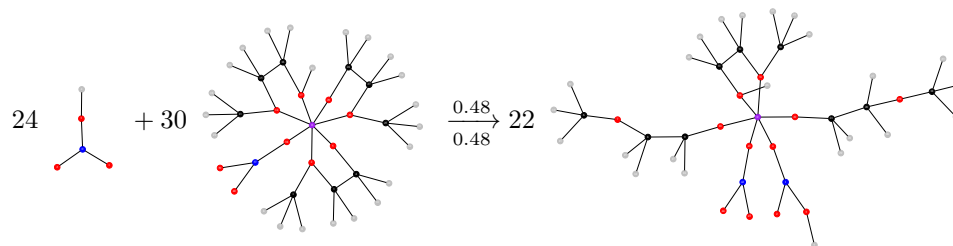
product bonds broken:

[(0, 0), (0, 4)]

[(0, 34), (0, 46)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(1, 0), (1, 2)]

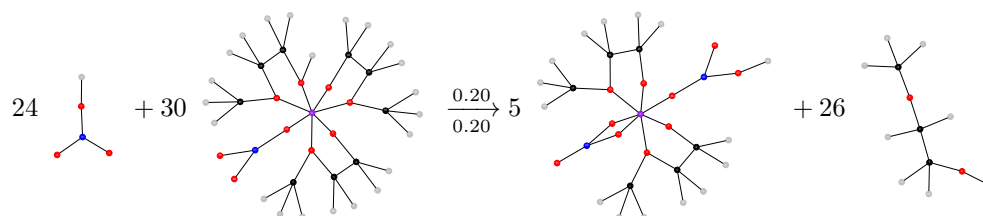
[(1, 0), (1, 26)]

product bonds broken:

[(0, 0), (0, 4)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(1, 0), (1, 14)]

[(1, 0), (1, 17)]

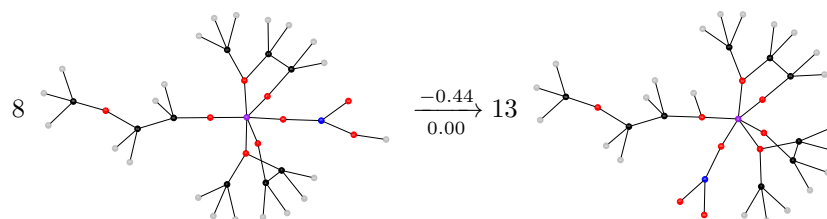
product bonds broken:

[(0, 0), (0, 32)]

[(0, 0), (0, 26)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

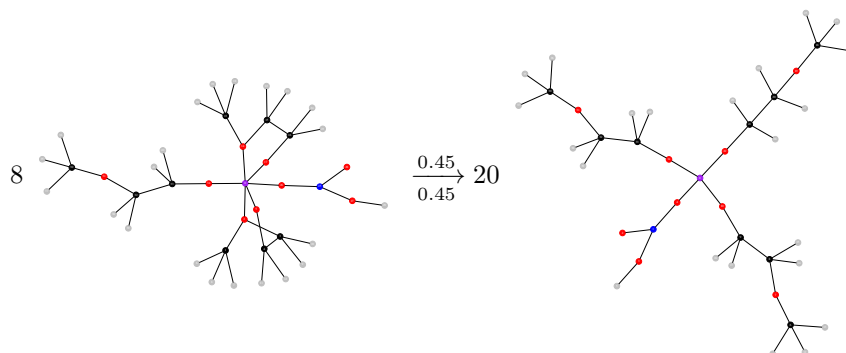
[(0, 27), (0, 29)]

product bonds broken:

[(0, 29), (0, 34)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

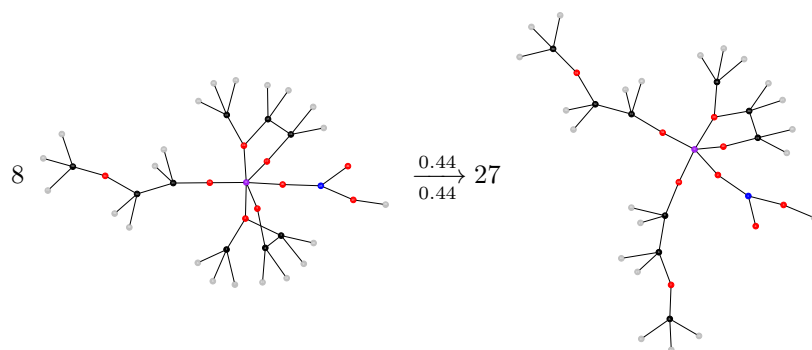
[(0, 0), (0, 2)]

[(0, 0), (0, 14)]

product bonds broken:

fragment matching found

Terminal.KEEP



reactant bonds broken:

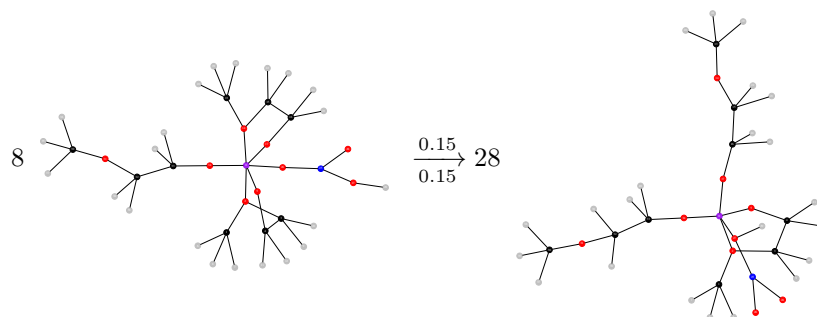
[(0, 0), (0, 2)]

[(0, 1), (0, 8)]

product bonds broken:

[(0, 6), (0, 11)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

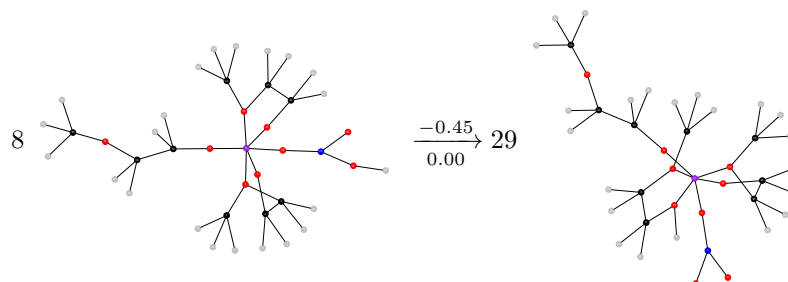
[(0, 0), (0, 2)]

[(0, 27), (0, 29)]

product bonds broken:

[(0, 27), (0, 29)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

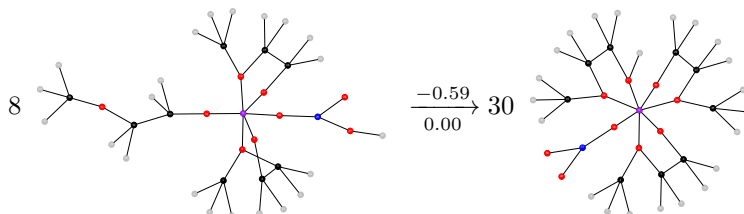
[(0, 27), (0, 29)]

product bonds broken:

[(0, 5), (0, 10)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(0, 27), (0, 29)]

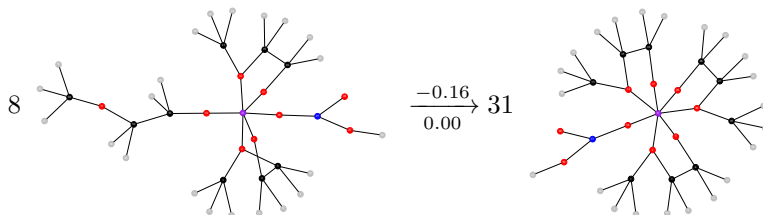
product bonds broken:

[(0, 0), (0, 2)]

[(0, 17), (0, 41)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(0, 1), (0, 8)]

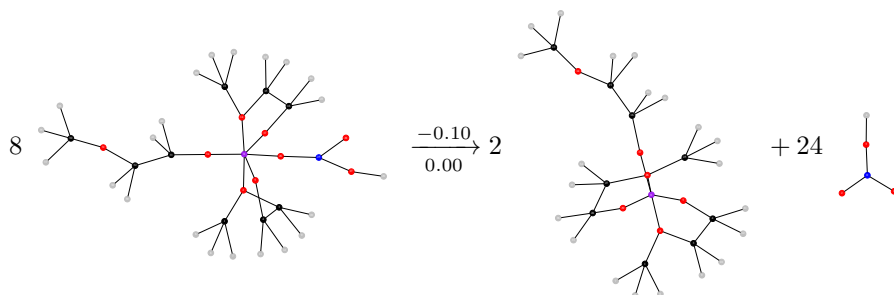
product bonds broken:

[(0, 0), (0, 2)]

[(0, 13), (0, 18)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 26)]

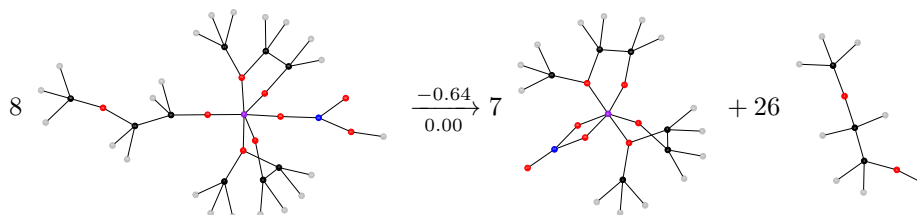
[(0, 1), (0, 8)]

product bonds broken:

[(0, 1), (0, 8)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 34)]

[(0, 27), (0, 29)]

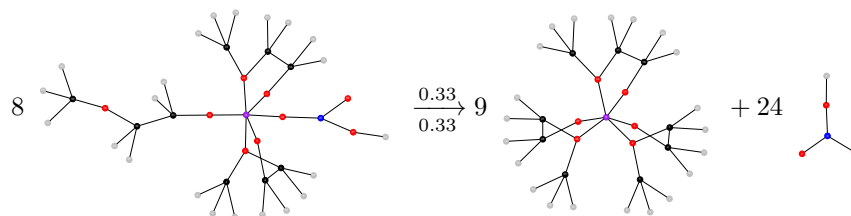
product bonds broken:

[(0, 0), (0, 26)]

[(1, 4), (1, 12)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 26)]

[(0, 1), (0, 8)]

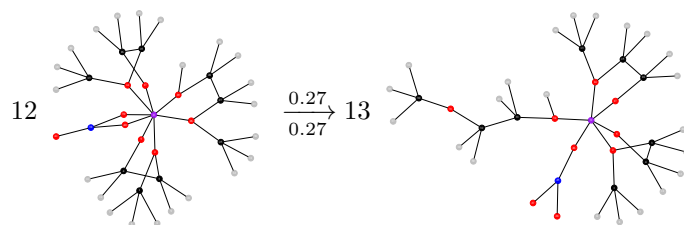
product bonds broken:

[(0, 0), (0, 2)]

[(0, 13), (0, 19)]

fragment matching found

Terminal.KEEP



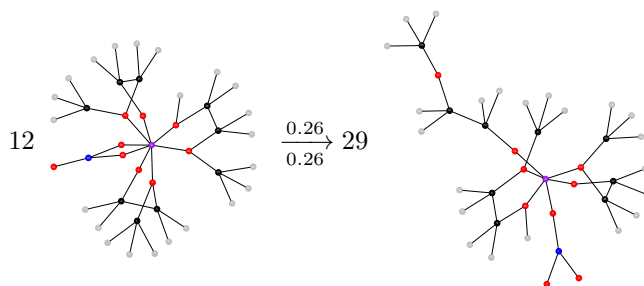
reactant bonds broken:

[(0, 0), (0, 39)]

[(0, 0), (0, 26)]

product bonds broken:

fragment matching found
Terminal.KEEP



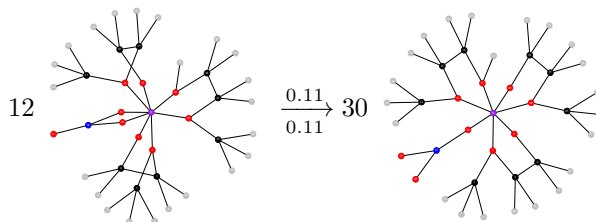
reactant bonds broken:

[(0, 0), (0, 39)]

[(0, 0), (0, 2)]

product bonds broken:

fragment matching found
Terminal.KEEP



reactant bonds broken:

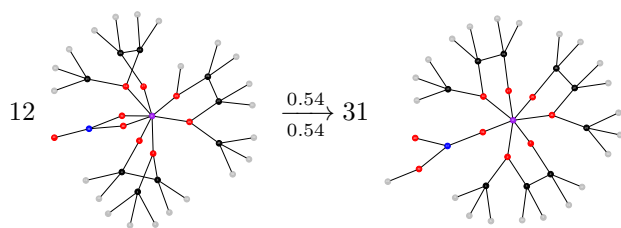
[(0, 0), (0, 39)]

[(0, 1), (0, 8)]

product bonds broken:

[(0, 1), (0, 8)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

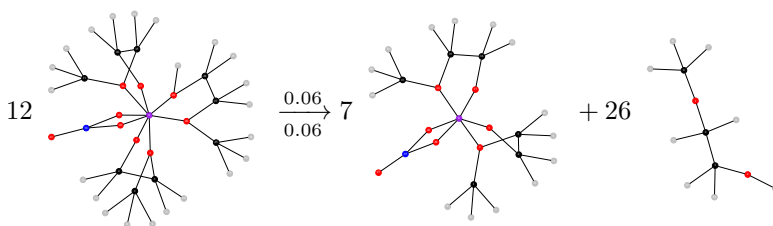
[(0, 0), (0, 39)]

[(0, 29), (0, 37)]

product bonds broken:

[(0, 39), (0, 41)]

fragment matching found
Terminal.KEEP



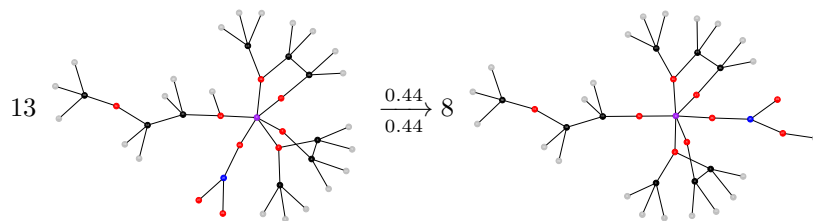
reactant bonds broken:

[(0, 0), (0, 26)]

[(0, 0), (0, 29)]

product bonds broken:

fragment matching found
Terminal.KEEP



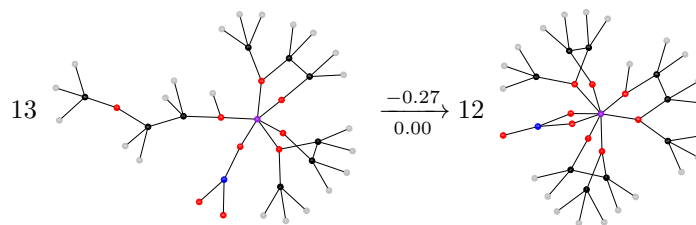
reactant bonds broken:

[(0, 29), (0, 34)]

product bonds broken:

[(0, 27), (0, 29)]

fragment matching found
Terminal.KEEP

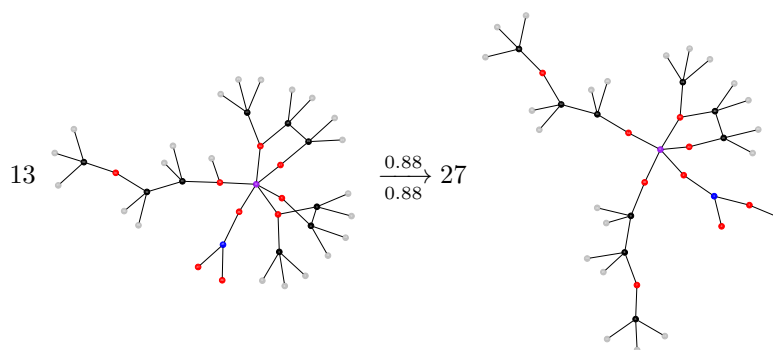


reactant bonds broken:product bonds broken:

[(0, 0), (0, 39)]

[(0, 0), (0, 26)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

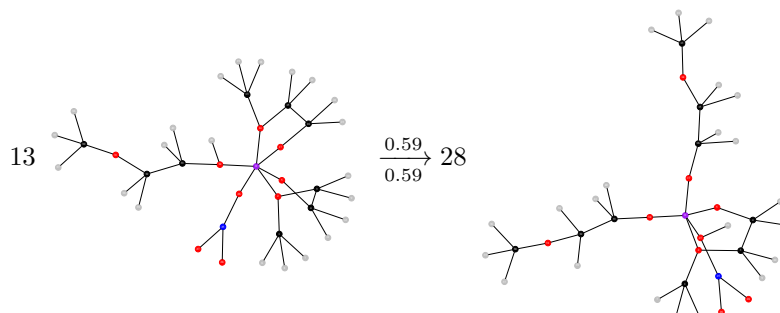
[(0, 0), (0, 2)]

[(0, 29), (0, 34)]

product bonds broken:

[(0, 3), (0, 5)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

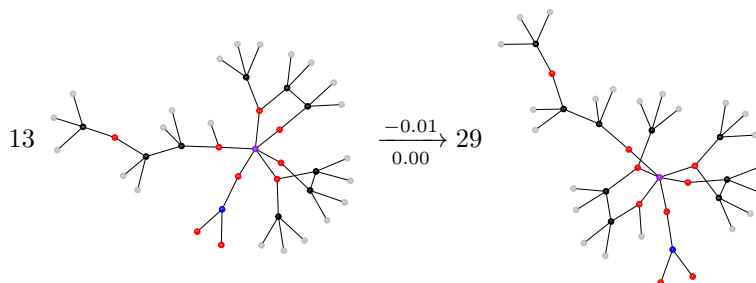
[(0, 0), (0, 2)]

[(0, 29), (0, 34)]

product bonds broken:

[(0, 27), (0, 29)]

fragment matching found
Terminal.KEEP



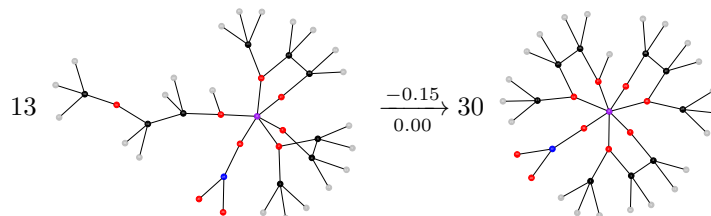
reactant bonds broken:

[(0, 29), (0, 34)]

product bonds broken:

[(0, 5), (0, 10)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

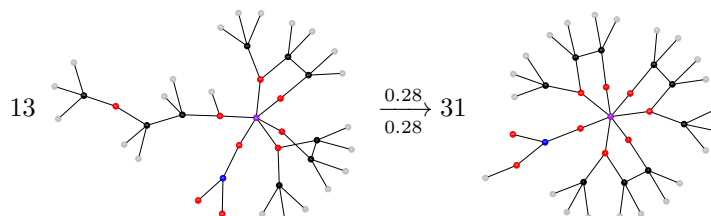
[(0, 1), (0, 7)]

product bonds broken:

[(0, 0), (0, 14)]

[(0, 1), (0, 8)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(0, 29), (0, 34)]

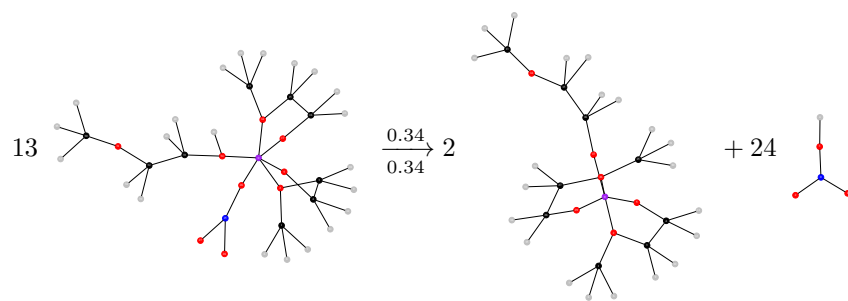
product bonds broken:

[(0, 0), (0, 2)]

[(0, 39), (0, 41)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 26)]

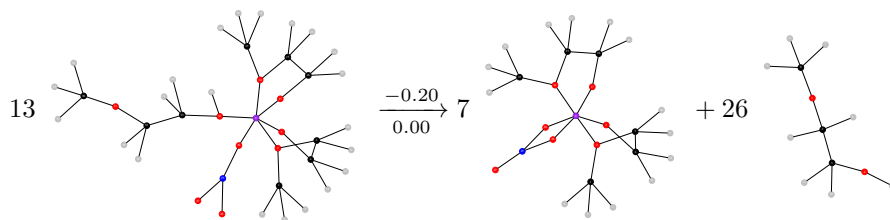
[(0, 29), (0, 34)]

product bonds broken:

[(1, 3), (1, 4)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 34)]

[(0, 1), (0, 7)]

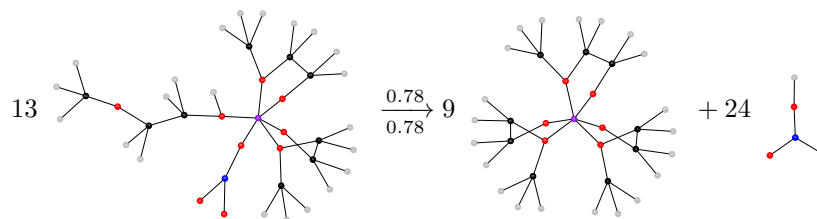
product bonds broken:

[(0, 0), (0, 26)]

[(0, 1), (0, 8)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 26)]

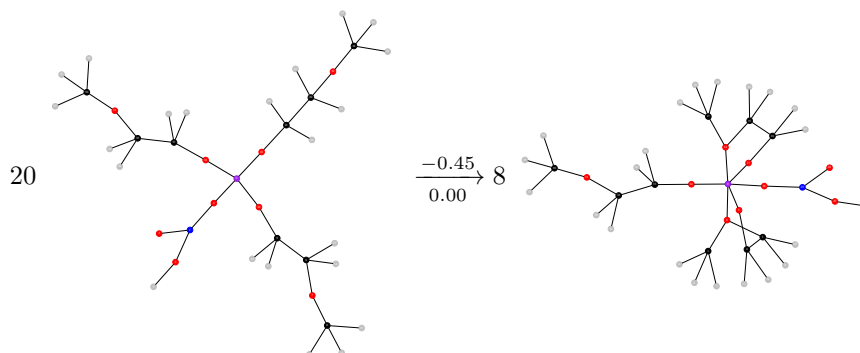
[(0, 29), (0, 34)]

product bonds broken:

[(0, 0), (0, 2)]

[(1, 3), (1, 4)]

fragment matching found
Terminal.KEEP

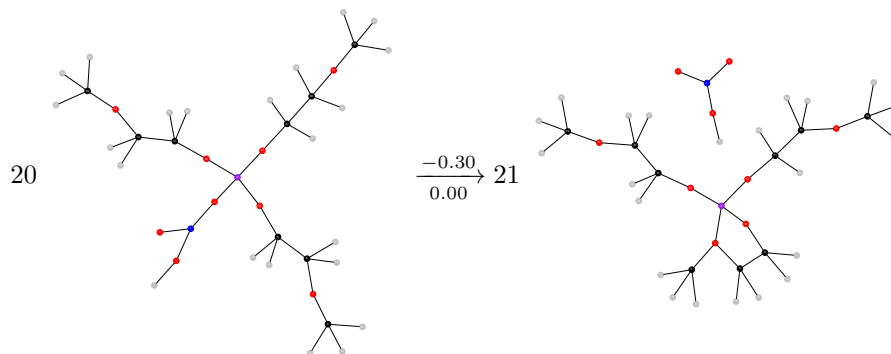


reactant bonds broken:product bonds broken:

[(0, 0), (0, 2)]

[(0, 0), (0, 14)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 4)]

[(0, 3), (0, 5)]

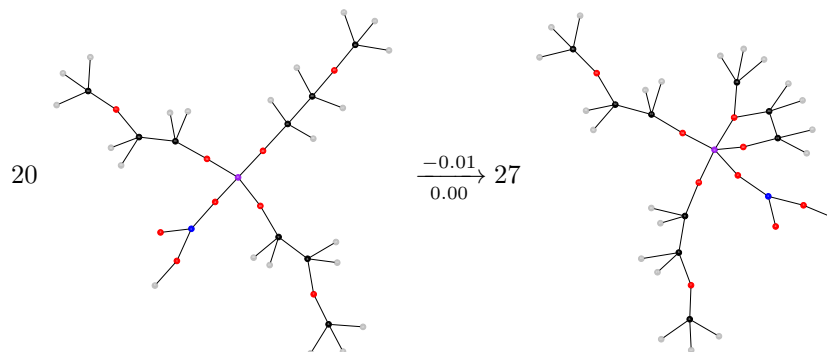
product bonds broken:

[(0, 0), (0, 7)]

[(0, 3), (0, 5)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(0, 3), (0, 5)]

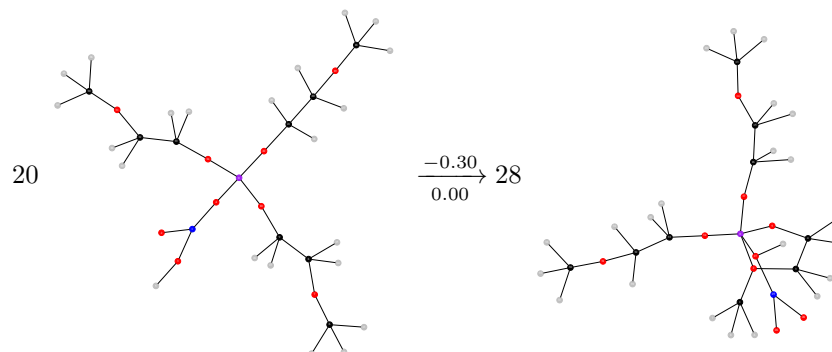
product bonds broken:

[(0, 0), (0, 19)]

[(0, 3), (0, 5)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

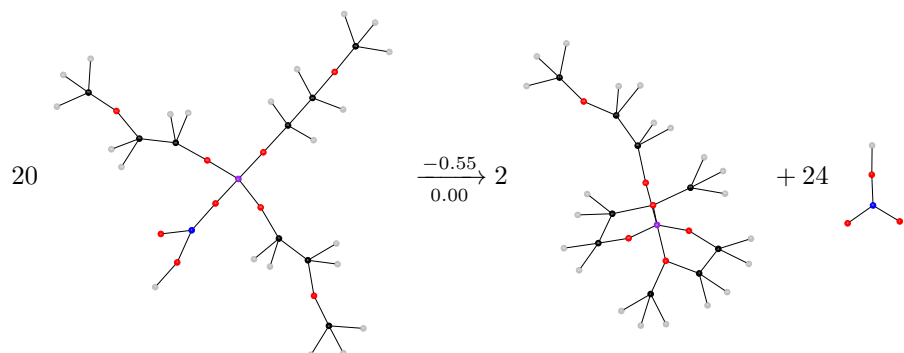
[(0, 3), (0, 5)]

product bonds broken:

[(0, 0), (0, 2)]

[(0, 27), (0, 29)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

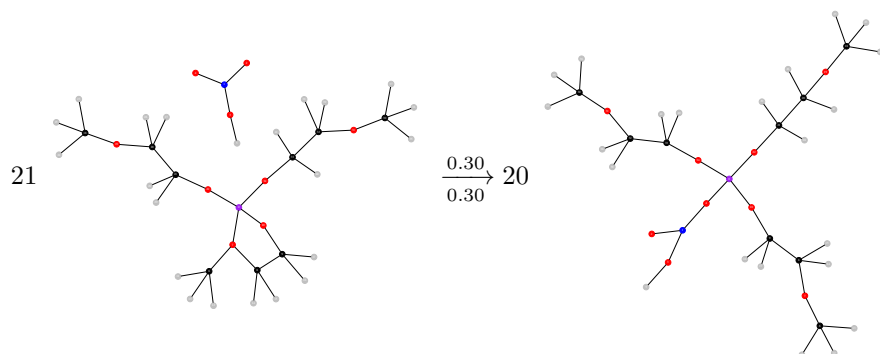
[(0, 0), (0, 4)]

product bonds broken:

[(0, 0), (0, 2)]

[(0, 0), (0, 26)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 7)]

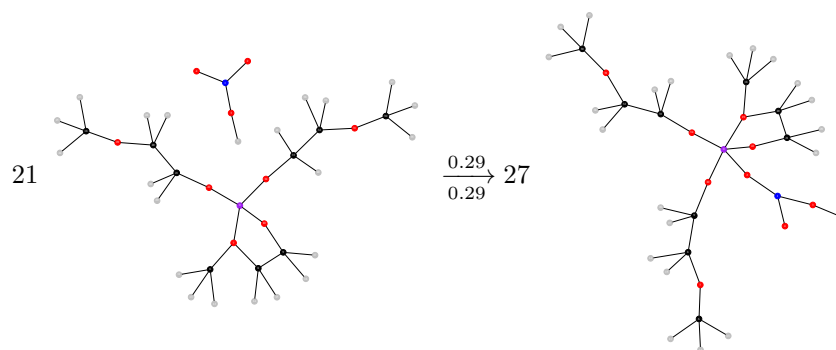
[(0, 3), (0, 5)]

product bonds broken:

[(0, 0), (0, 4)]

[(0, 3), (0, 5)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

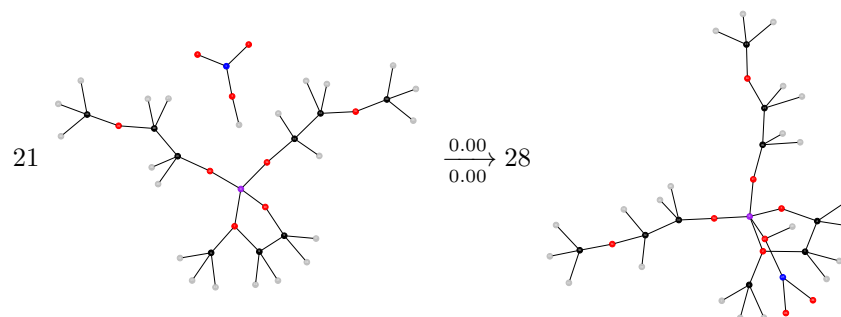
[(0, 3), (0, 5)]

product bonds broken:

[(0, 0), (0, 2)]

[(0, 3), (0, 5)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

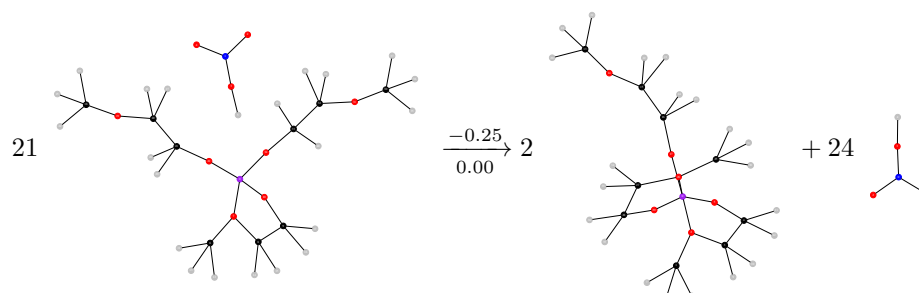
[(0, 3), (0, 5)]

product bonds broken:

[(0, 0), (0, 27)]

[(0, 27), (0, 29)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

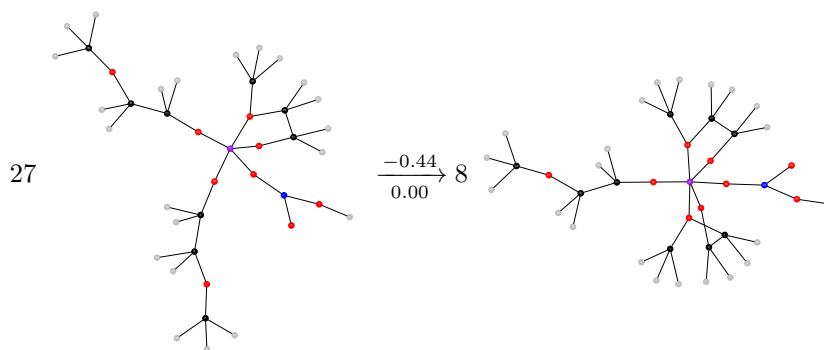
[(0, 3), (0, 5)]

product bonds broken:

[(0, 0), (0, 2)]

[(1, 3), (1, 4)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

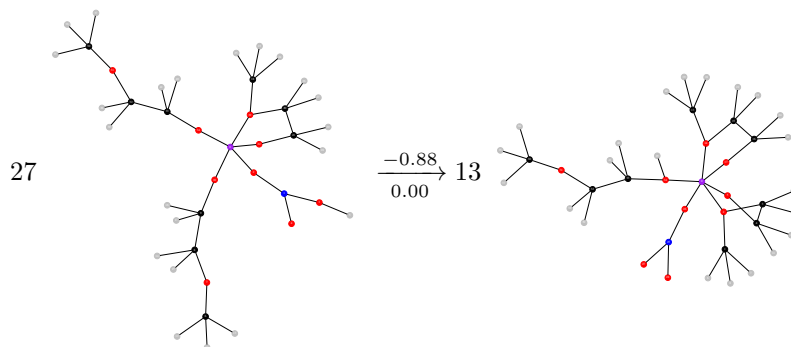
[(0, 3), (0, 5)]

product bonds broken:

[(0, 0), (0, 2)]

[(0, 27), (0, 29)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

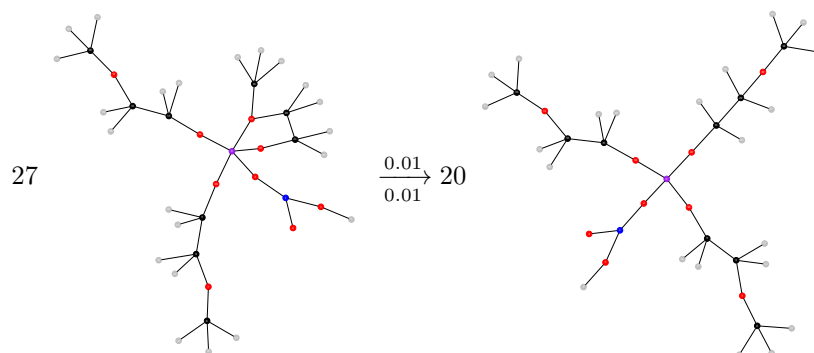
[(0, 3), (0, 5)]

product bonds broken:

[(0, 0), (0, 2)]

[(0, 29), (0, 34)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

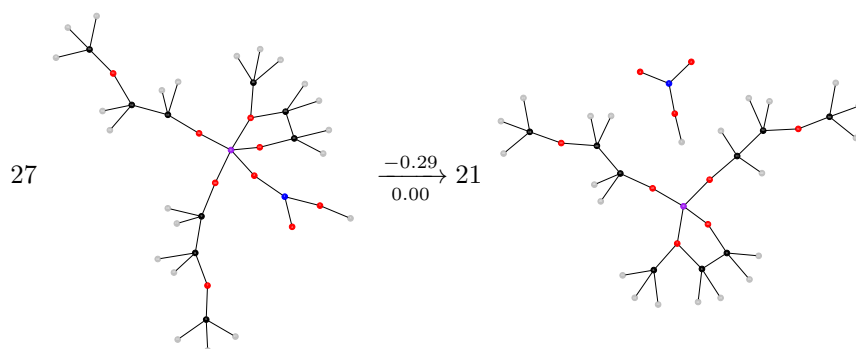
[(0, 0), (0, 19)]

[(0, 3), (0, 5)]

product bonds broken:

[(0, 3), (0, 5)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

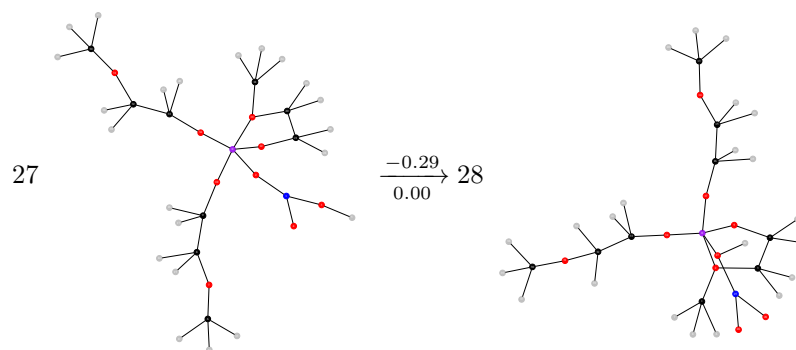
[(0, 0), (0, 2)]

[(0, 3), (0, 5)]

product bonds broken:

[(0, 3), (0, 5)]

fragment matching found
Terminal.KEEP



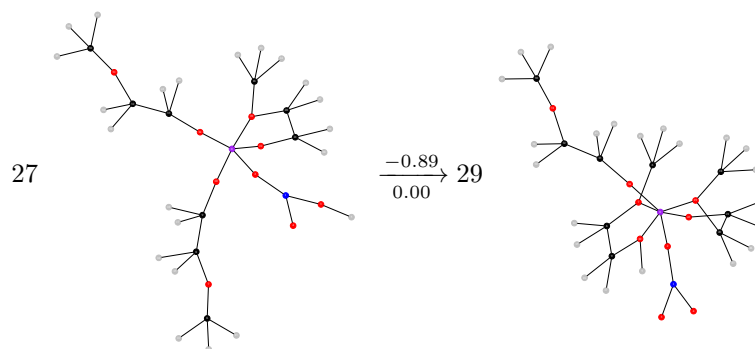
reactant bonds broken:

[(0, 3), (0, 5)]

product bonds broken:

[(0, 27), (0, 29)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

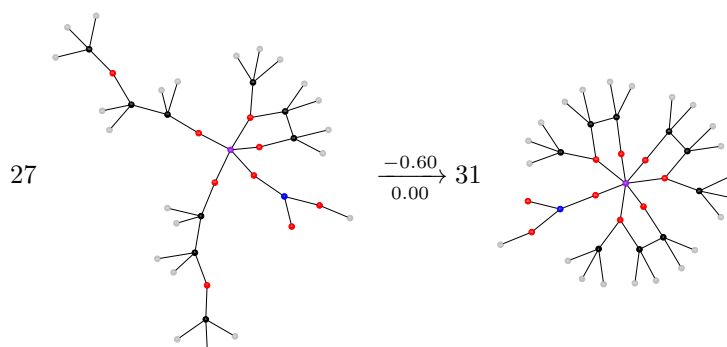
[(0, 3), (0, 5)]

product bonds broken:

[(0, 0), (0, 7)]

[(0, 5), (0, 10)]

fragment matching found
Terminal.KEEP

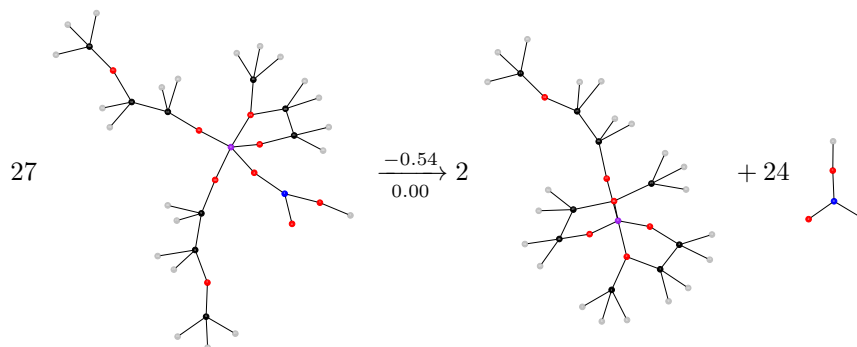


reactant bonds broken:product bonds broken:

[(0, 0), (0, 2)]

[(0, 0), (0, 14)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 2)]

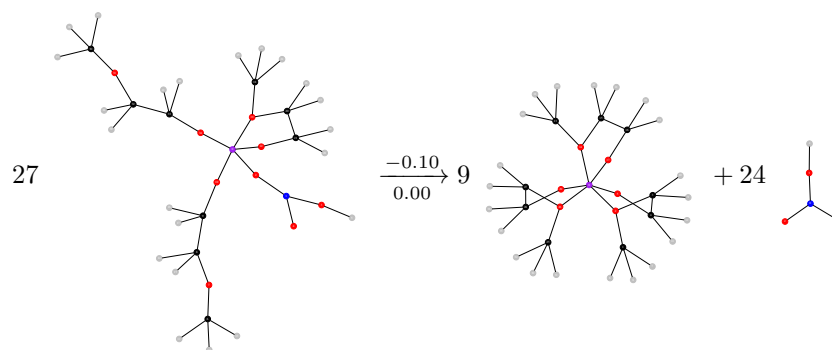
[(0, 3), (0, 5)]

product bonds broken:

[(0, 0), (0, 2)]

[(1, 3), (1, 4)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

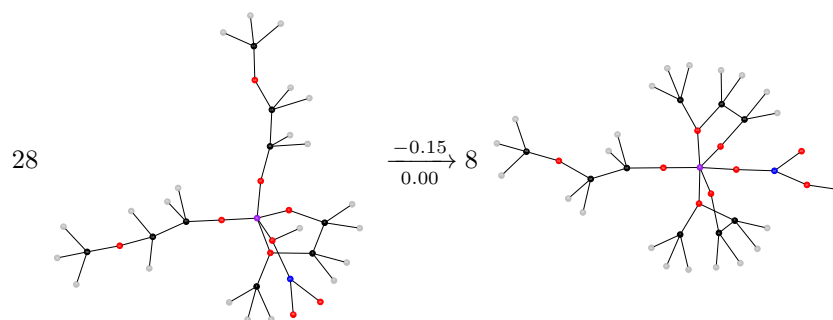
[(0, 0), (0, 2)]

product bonds broken:

[(0, 0), (0, 2)]

[(0, 0), (0, 14)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

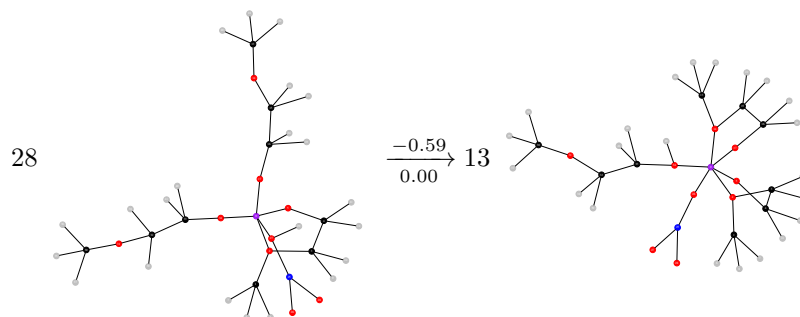
[(0, 27), (0, 29)]

product bonds broken:

[(0, 0), (0, 2)]

[(0, 27), (0, 29)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

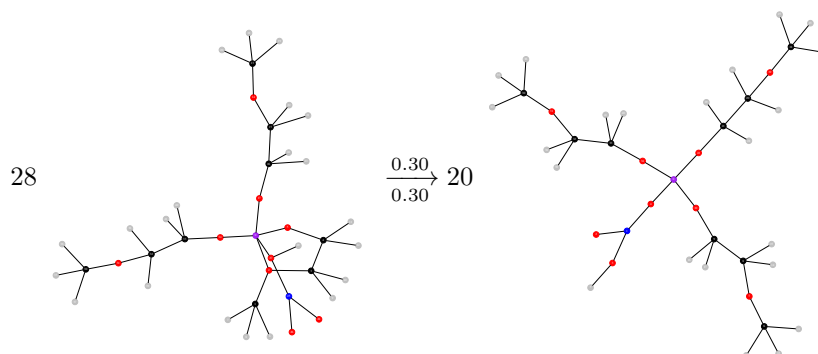
[(0, 27), (0, 29)]

product bonds broken:

[(0, 0), (0, 2)]

[(0, 29), (0, 34)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

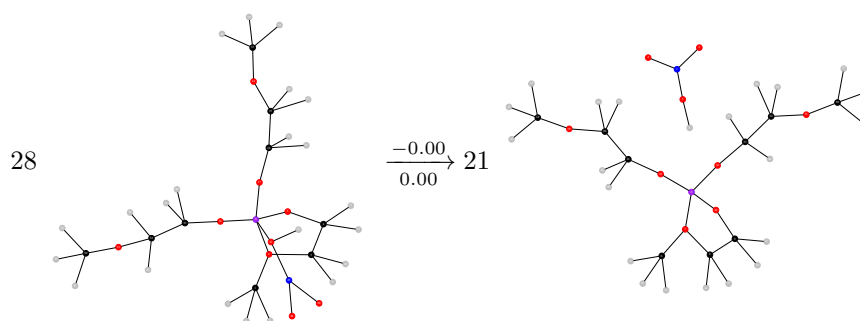
[(0, 0), (0, 2)]

[(0, 27), (0, 29)]

product bonds broken:

[(0, 3), (0, 5)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

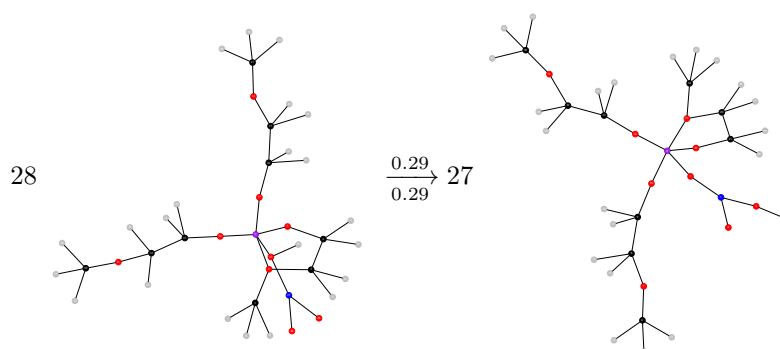
[(0, 0), (0, 27)]

[(0, 1), (0, 7)]

product bonds broken:

[(0, 6), (0, 11)]

fragment matching found
Terminal.KEEP



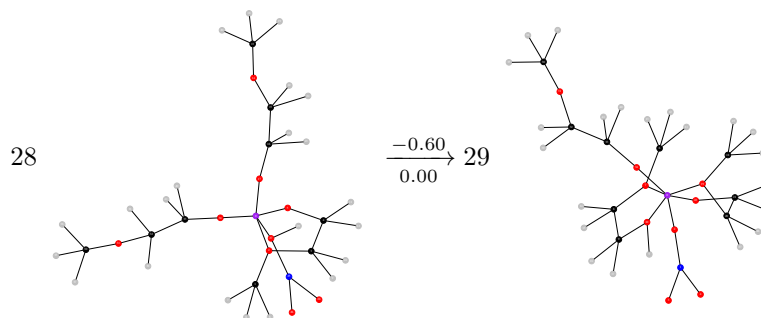
reactant bonds broken:

[(0, 27), (0, 29)]

product bonds broken:

[(0, 3), (0, 5)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(0, 27), (0, 29)]

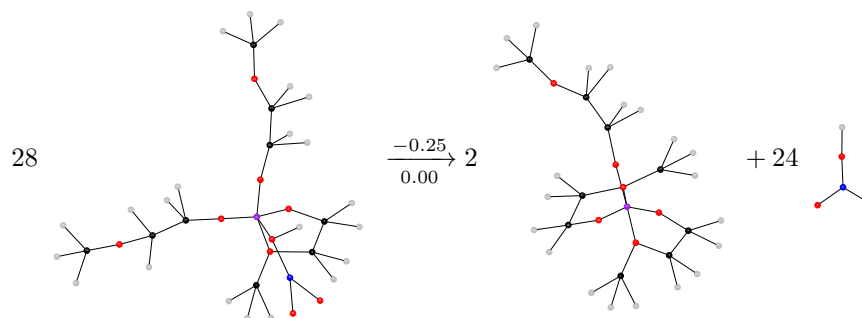
product bonds broken:

[(0, 0), (0, 7)]

[(0, 5), (0, 10)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 27)]

[(0, 1), (0, 7)]

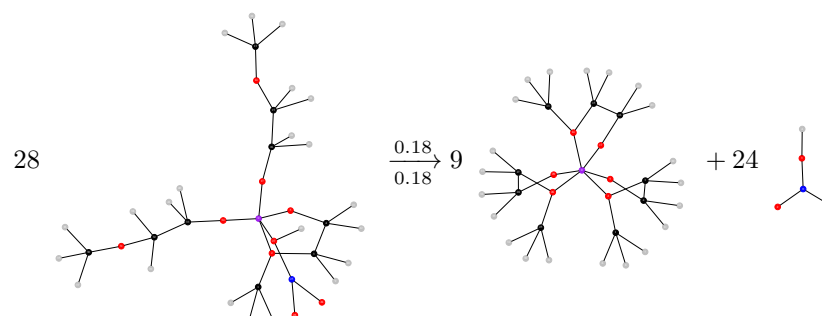
product bonds broken:

[(0, 0), (0, 2)]

[(0, 25), (0, 30)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 27)]

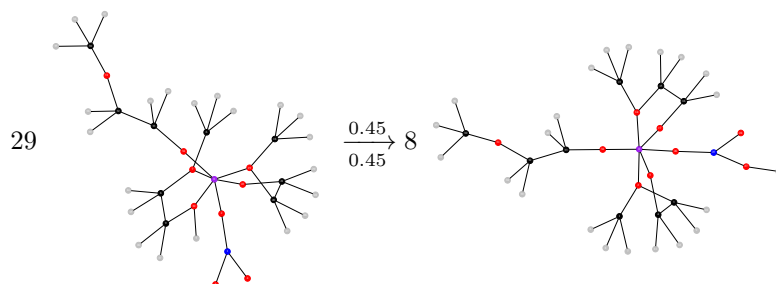
product bonds broken:

[(0, 0), (0, 2)]

[(0, 0), (0, 14)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

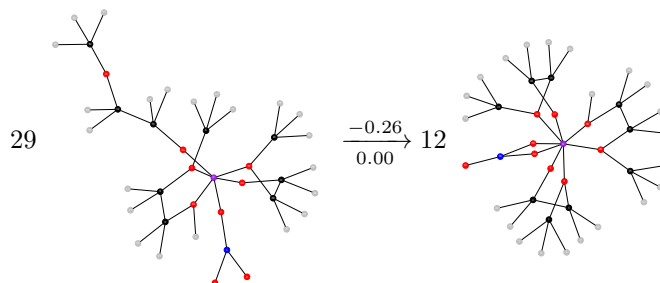
[(0, 5), (0, 10)]

product bonds broken:

[(0, 27), (0, 29)]

fragment matching found

Terminal.KEEP



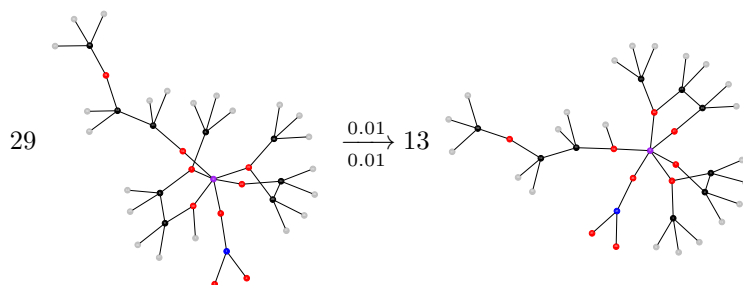
reactant bonds broken:product bonds broken:

[(0, 0), (0, 39)]

[(0, 0), (0, 2)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

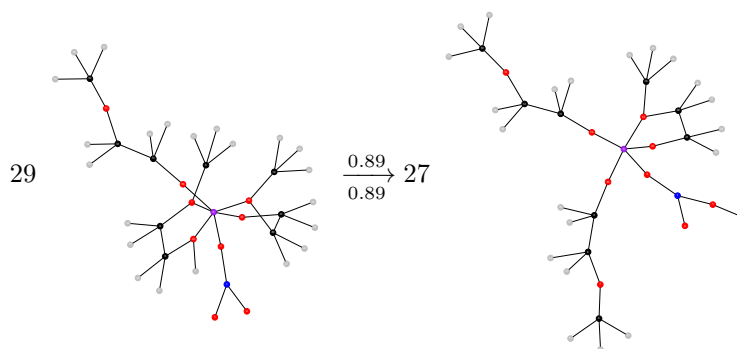
[(0, 5), (0, 10)]

product bonds broken:

[(0, 29), (0, 34)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 7)]

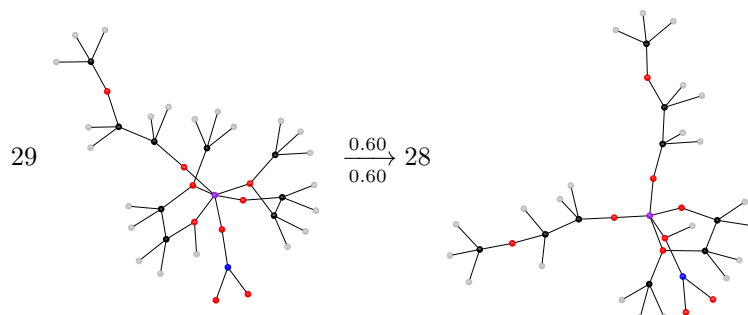
[(0, 5), (0, 10)]

product bonds broken:

[(0, 3), (0, 5)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 7)]

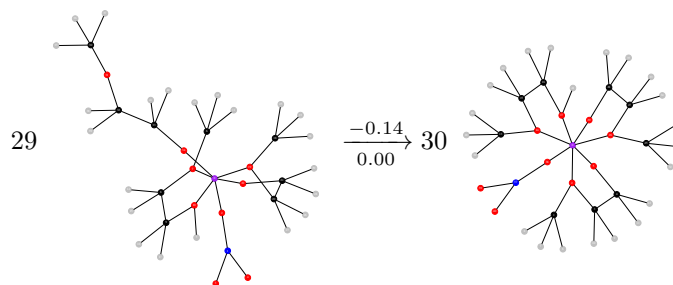
[(0, 5), (0, 10)]

product bonds broken:

[(0, 27), (0, 29)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

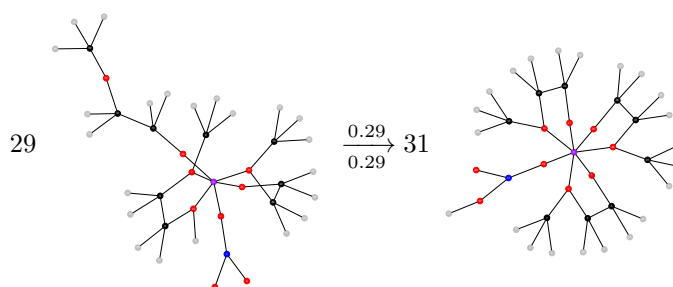
[(0, 5), (0, 10)]

product bonds broken:

[(0, 0), (0, 2)]

[(0, 17), (0, 41)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

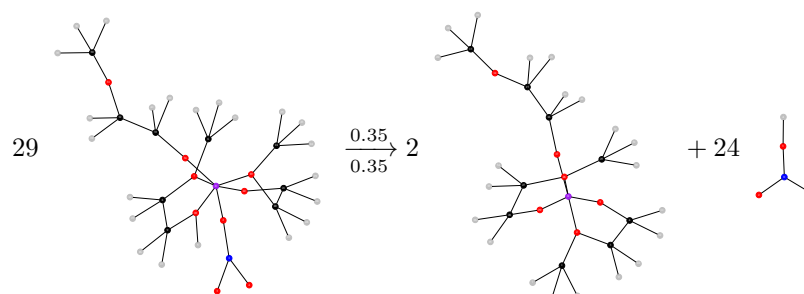
[(0, 5), (0, 10)]

product bonds broken:

[(0, 0), (0, 2)]

[(0, 39), (0, 41)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 2)]

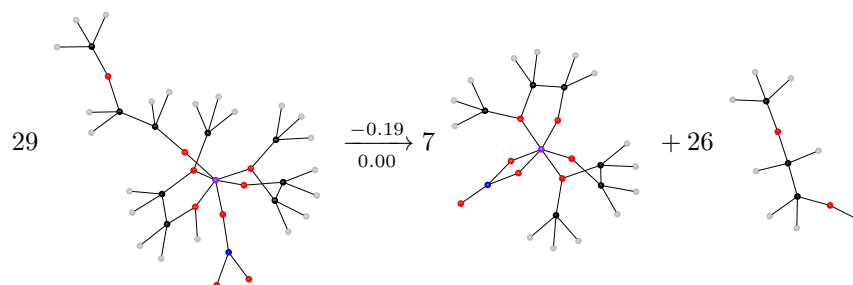
[(0, 5), (0, 10)]

product bonds broken:

[(1, 3), (1, 4)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 34)]

[(0, 5), (0, 10)]

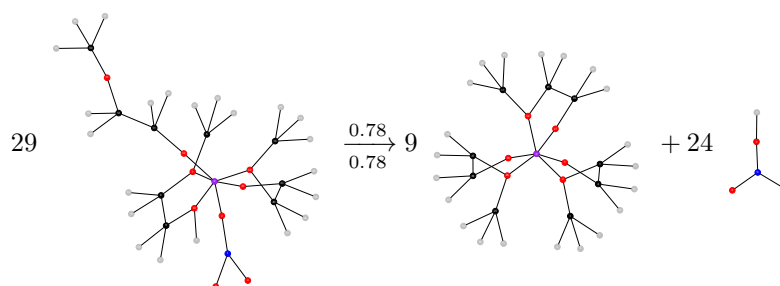
product bonds broken:

[(0, 0), (0, 26)]

[(1, 4), (1, 12)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 2)]

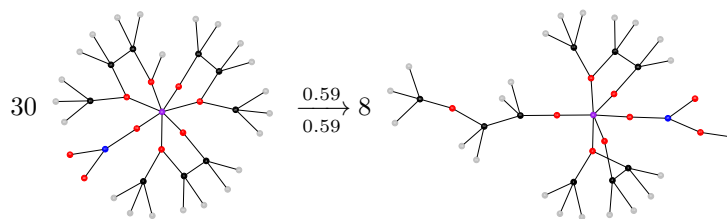
[(0, 5), (0, 10)]

product bonds broken:

[(0, 0), (0, 2)]

[(1, 3), (1, 4)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

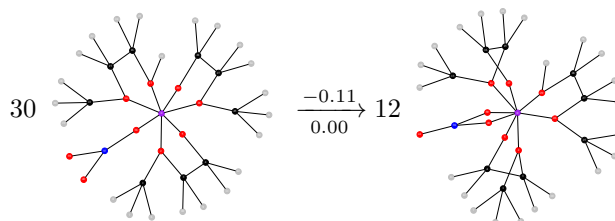
[(0, 0), (0, 2)]

[(0, 17), (0, 41)]

product bonds broken:

[(0, 27), (0, 29)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

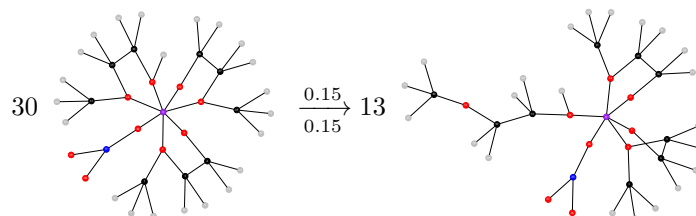
[(0, 1), (0, 8)]

product bonds broken:

[(0, 0), (0, 39)]

[(0, 1), (0, 8)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

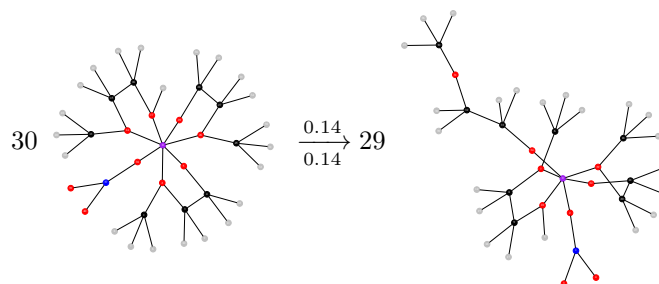
[(0, 0), (0, 2)]

[(0, 17), (0, 41)]

product bonds broken:

[(0, 29), (0, 34)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

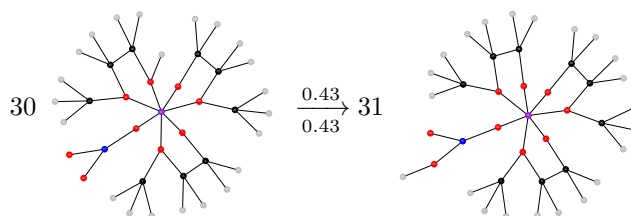
[(0, 0), (0, 2)]

[(0, 1), (0, 8)]

product bonds broken:

[(0, 30), (0, 36)]

fragment matching found
Terminal.KEEP



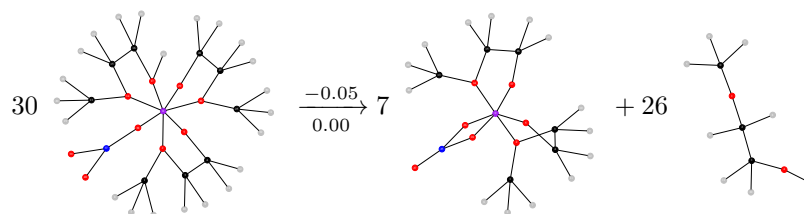
reactant bonds broken:

[(0, 17), (0, 41)]

product bonds broken:

[(0, 39), (0, 41)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 14)]

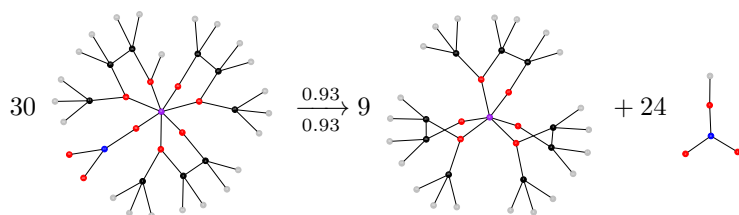
[(0, 0), (0, 17)]

product bonds broken:

[(0, 0), (0, 26)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 38)]

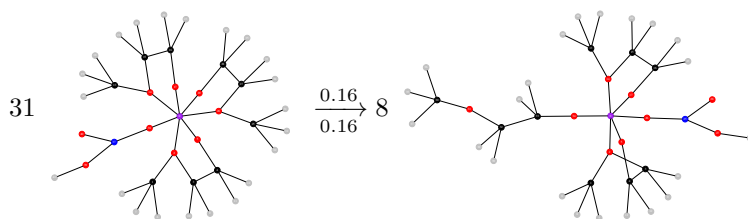
[(0, 17), (0, 41)]

product bonds broken:

[(1, 3), (1, 4)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 2)]

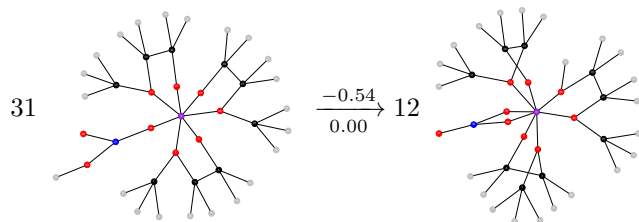
[(0, 1), (0, 7)]

product bonds broken:

[(0, 30), (0, 36)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

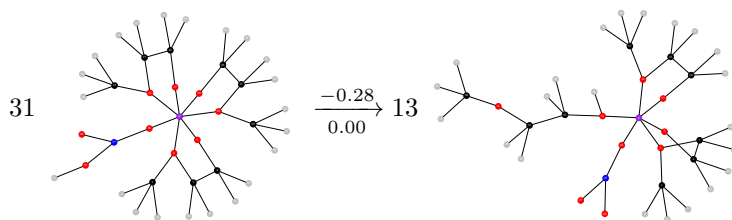
[(0, 39), (0, 41)]

product bonds broken:

[(0, 0), (0, 39)]

[(0, 29), (0, 37)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

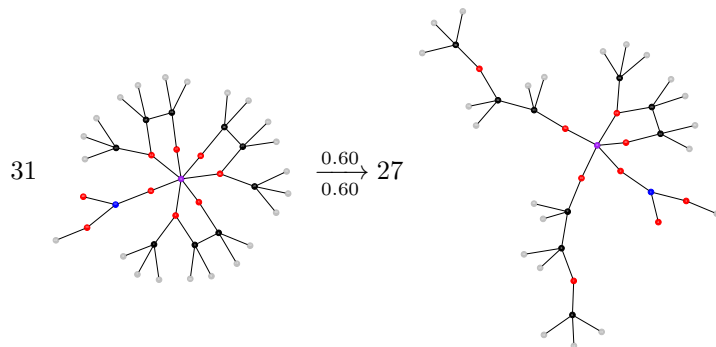
[(0, 0), (0, 2)]

[(0, 39), (0, 41)]

product bonds broken:

[(0, 29), (0, 34)]

fragment matching found
Terminal.KEEP



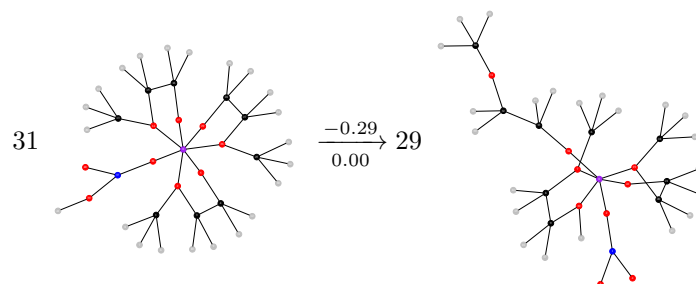
reactant bonds broken:

[(0, 0), (0, 2)]

[(0, 0), (0, 14)]

product bonds broken:

fragment matching found
Terminal.KEEP



reactant bonds broken:

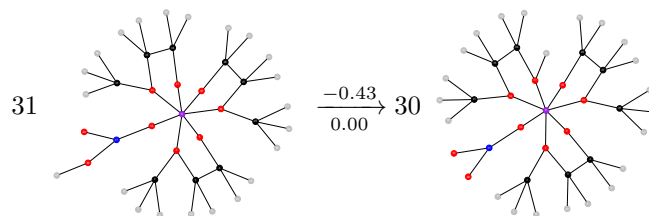
[(0, 0), (0, 2)]

[(0, 39), (0, 41)]

product bonds broken:

[(0, 5), (0, 10)]

fragment matching found
Terminal.KEEP



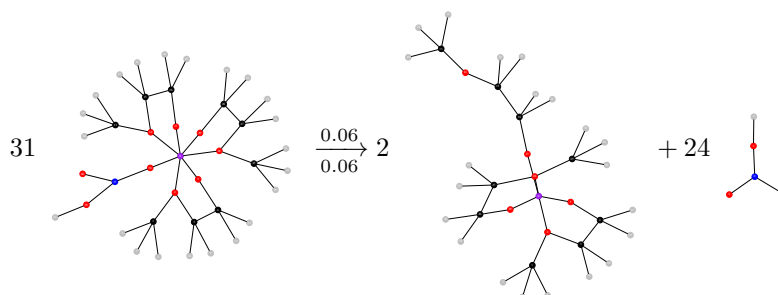
reactant bonds broken:

[(0, 39), (0, 41)]

product bonds broken:

[(0, 17), (0, 41)]

fragment matching found
Terminal.KEEP



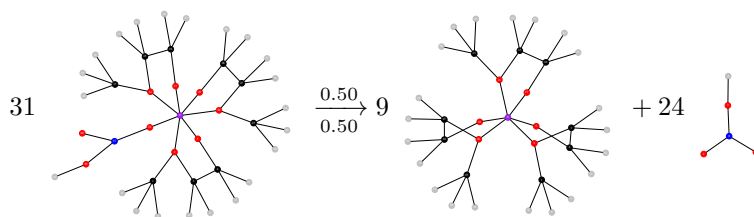
reactant bonds broken:

[(0, 0), (0, 2)]

[(0, 0), (0, 38)]

product bonds broken:

fragment matching found
Terminal.KEEP



reactant bonds broken:

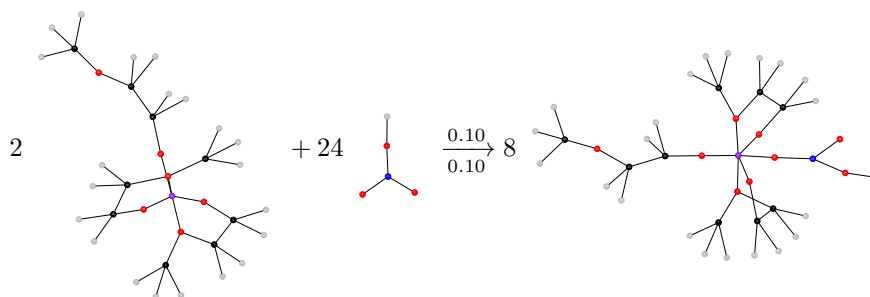
[(0, 0), (0, 38)]

[(0, 1), (0, 7)]

product bonds broken:

[(0, 1), (0, 8)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

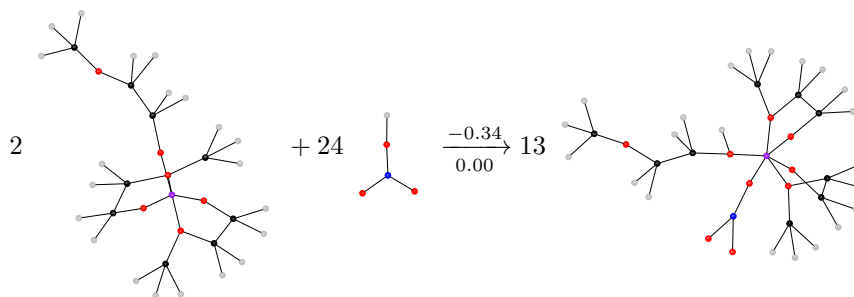
[(1, 3), (1, 4)]

product bonds broken:

[(0, 0), (0, 26)]

[(0, 27), (0, 29)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

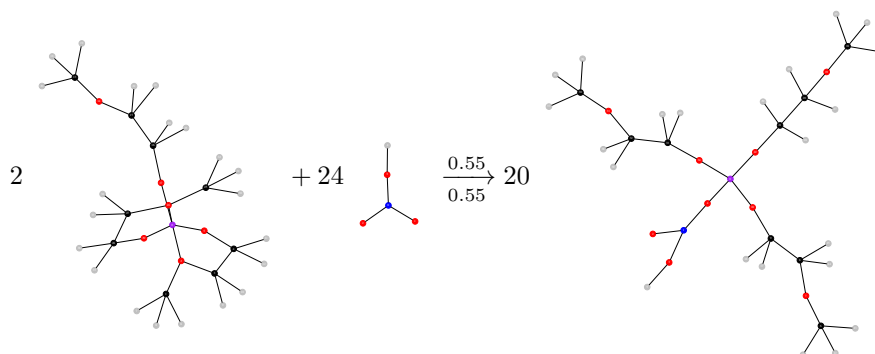
[(1, 3), (1, 4)]

product bonds broken:

[(0, 0), (0, 26)]

[(0, 29), (0, 34)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

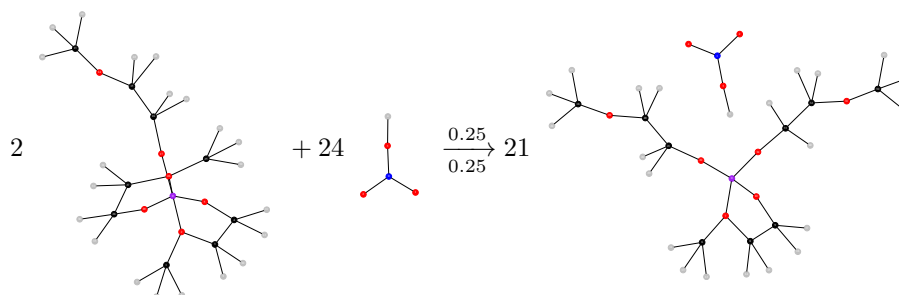
[(0, 0), (0, 2)]

[(0, 0), (0, 26)]

product bonds broken:

[(0, 0), (0, 4)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

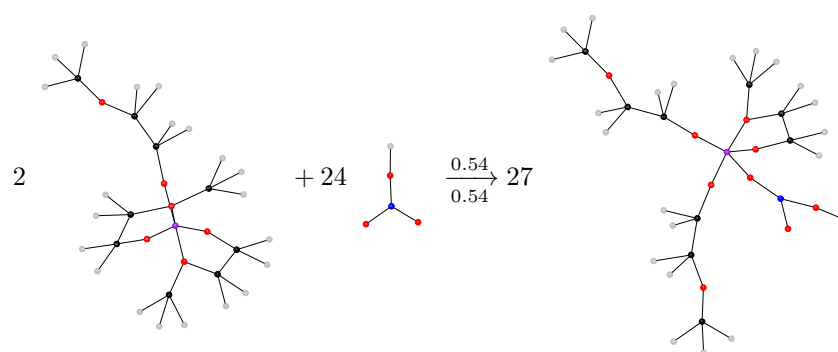
[(0, 0), (0, 2)]

[(1, 3), (1, 4)]

product bonds broken:

[(0, 3), (0, 5)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 2)]

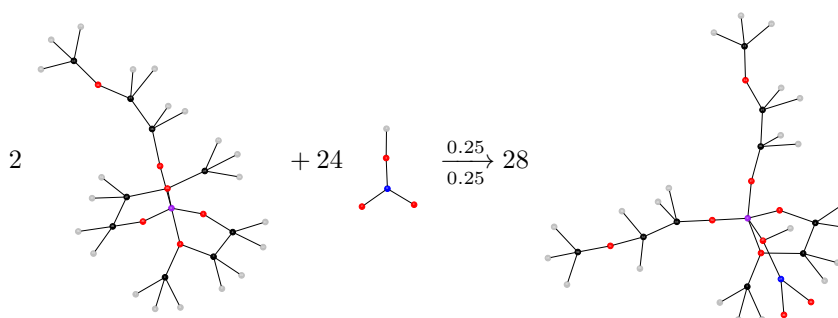
[(1, 3), (1, 4)]

product bonds broken:

[(0, 0), (0, 2)]

[(0, 3), (0, 5)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 2)]

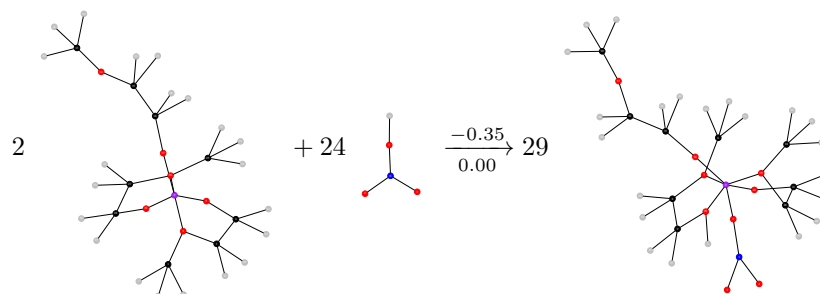
[(1, 3), (1, 4)]

product bonds broken:

[(0, 0), (0, 27)]

[(0, 27), (0, 29)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

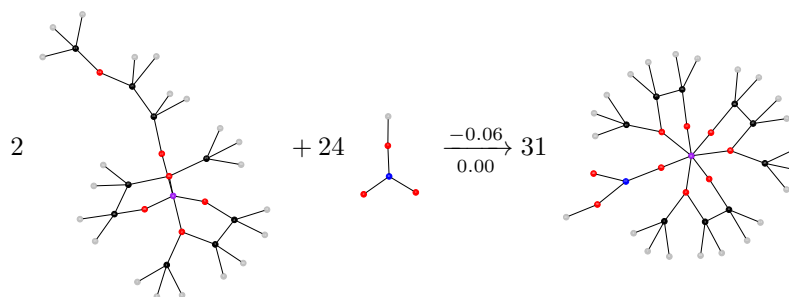
[(1, 3), (1, 4)]

product bonds broken:

[(0, 0), (0, 2)]

[(0, 5), (0, 10)]

fragment matching found
Terminal.KEEP

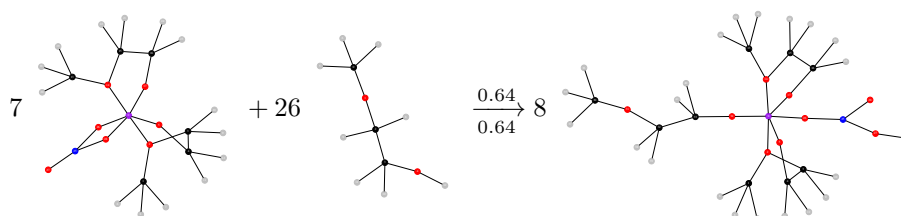


reactant bonds broken:product bonds broken:

[(0, 0), (0, 2)]

[(0, 0), (0, 38)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 26)]

[(1, 4), (1, 12)]

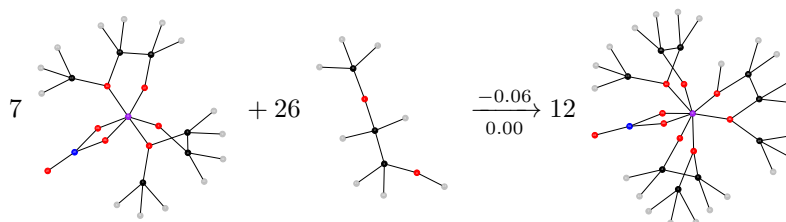
product bonds broken:

[(0, 0), (0, 34)]

[(0, 27), (0, 29)]

fragment matching found

Terminal.KEEP



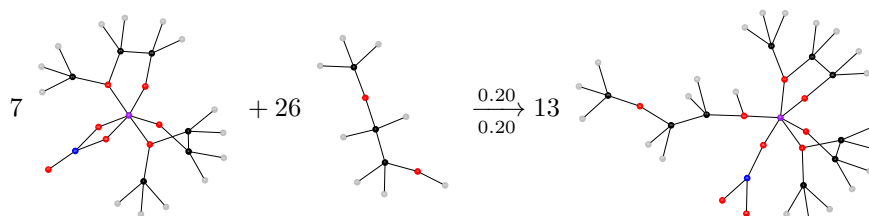
reactant bonds broken:product bonds broken:

[(0, 0), (0, 26)]

[(0, 0), (0, 29)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 26)]

[(1, 0), (1, 7)]

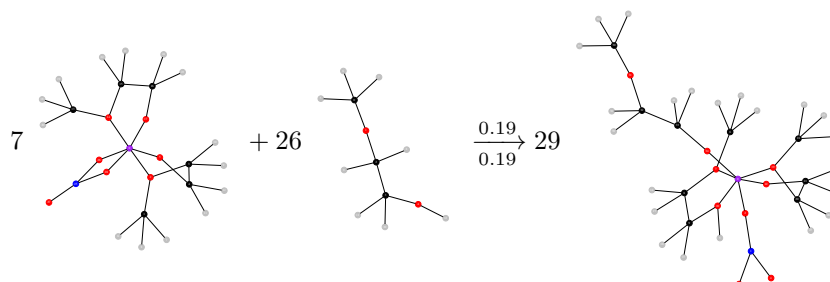
product bonds broken:

[(0, 0), (0, 34)]

[(0, 30), (0, 35)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 26)]

[(1, 4), (1, 12)]

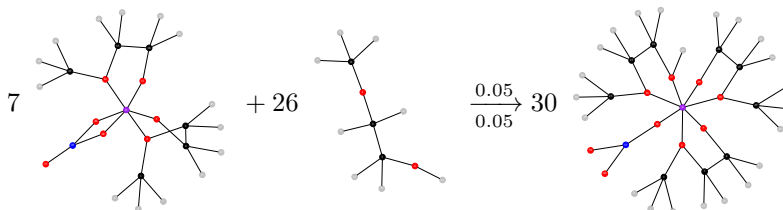
product bonds broken:

[(0, 0), (0, 34)]

[(0, 5), (0, 10)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 26)]

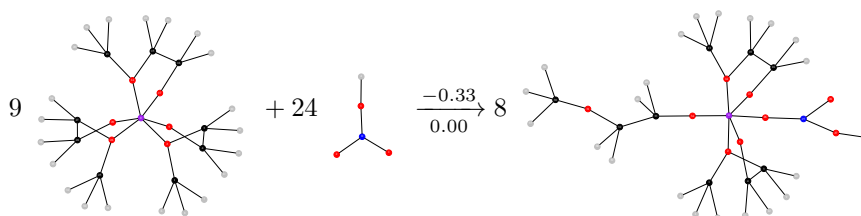
product bonds broken:

[(0, 0), (0, 14)]

[(0, 0), (0, 17)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 2)]

[(1, 3), (1, 4)]

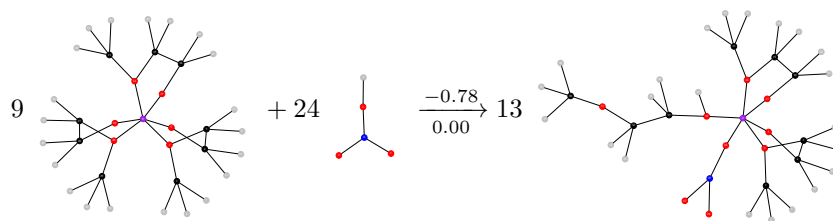
product bonds broken:

[(0, 0), (0, 26)]

[(0, 27), (0, 29)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 2)]

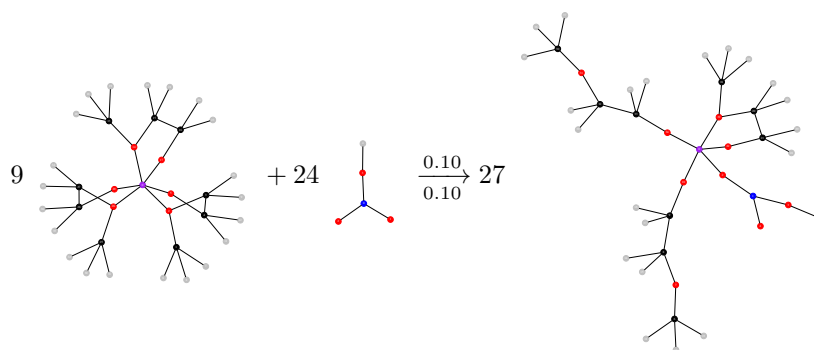
[(1, 3), (1, 4)]

product bonds broken:

[(0, 0), (0, 26)]

[(0, 29), (0, 34)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

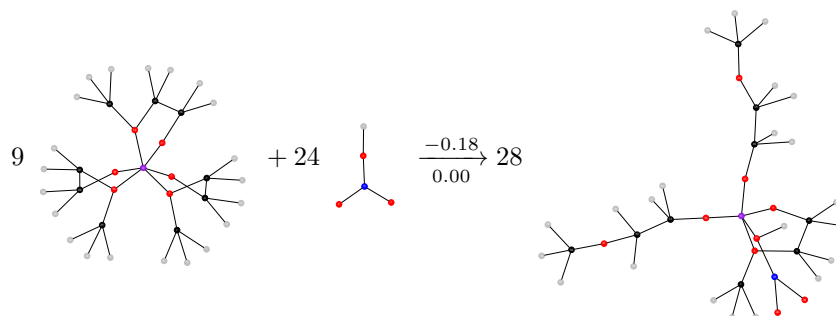
[(0, 0), (0, 2)]

[(0, 0), (0, 14)]

product bonds broken:

[(0, 0), (0, 2)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 2)]

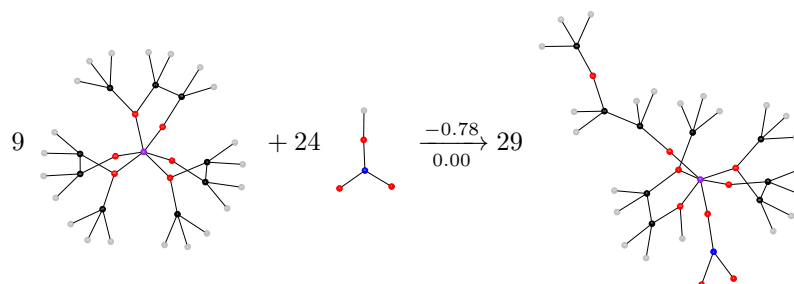
[(0, 0), (0, 14)]

product bonds broken:

[(0, 0), (0, 27)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 2)]

[(1, 3), (1, 4)]

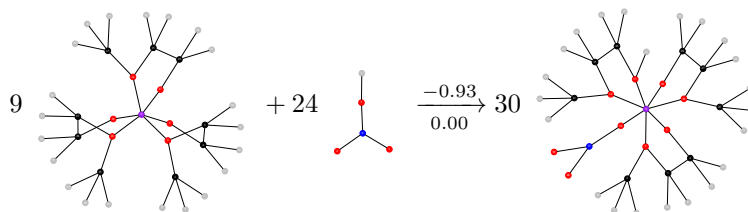
product bonds broken:

[(0, 0), (0, 2)]

[(0, 5), (0, 10)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(1, 3), (1, 4)]

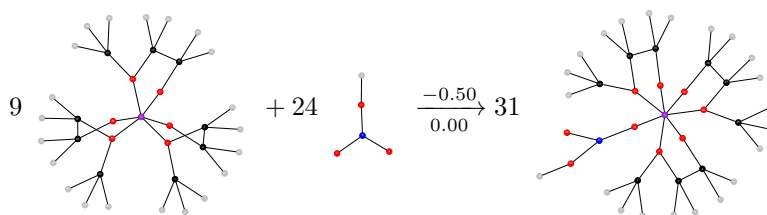
product bonds broken:

[(0, 0), (0, 38)]

[(0, 17), (0, 41)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

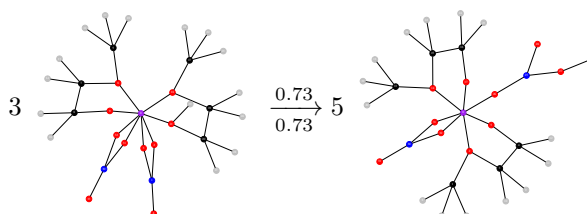
[(1, 3), (1, 4)]

product bonds broken:

[(0, 0), (0, 38)]

[(0, 39), (0, 41)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

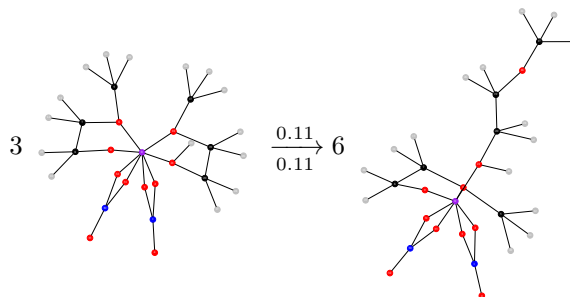
[(0, 0), (0, 31)]

[(0, 21), (0, 29)]

product bonds broken:

[(0, 27), (0, 29)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

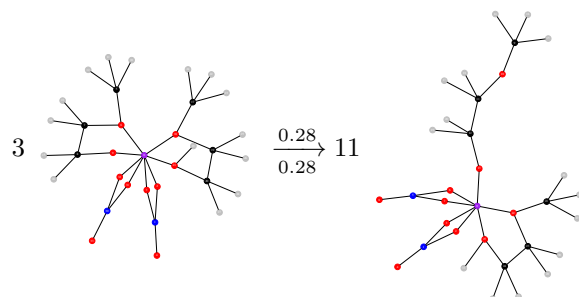
[(0, 0), (0, 6)]

[(0, 21), (0, 29)]

product bonds broken:

[(0, 21), (0, 29)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

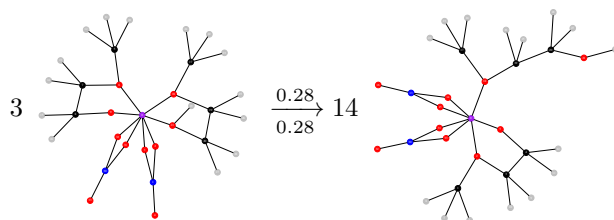
[(0, 0), (0, 6)]

[(0, 5), (0, 11)]

product bonds broken:

[(0, 9), (0, 14)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

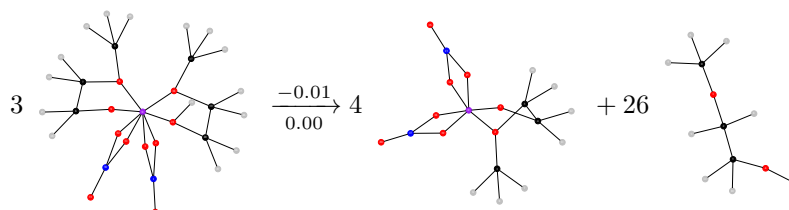
[(0, 0), (0, 9)]

[(0, 21), (0, 29)]

product bonds broken:

[(0, 21), (0, 29)]

fragment matching found
Terminal.KEEP



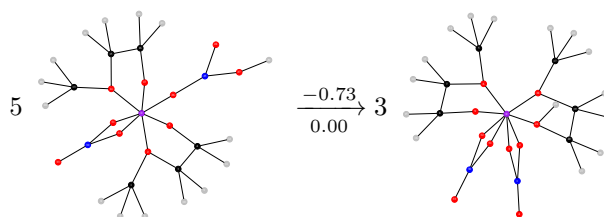
reactant bonds broken:

[(0, 0), (0, 18)]

[(0, 0), (0, 21)]

product bonds broken:

fragment matching found
Terminal.KEEP



reactant bonds broken:

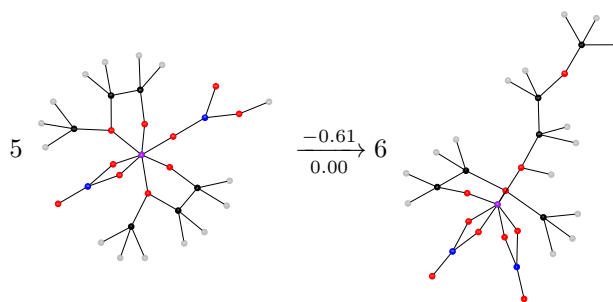
[(0, 27), (0, 29)]

product bonds broken:

[(0, 0), (0, 31)]

[(0, 21), (0, 29)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 2)]

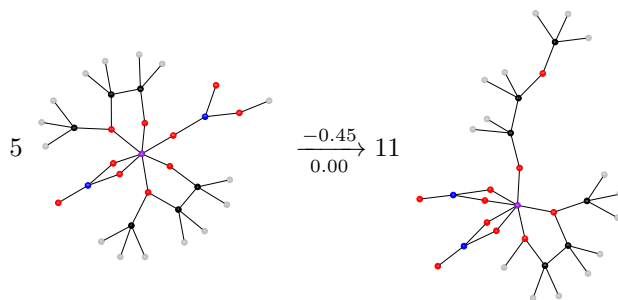
[(0, 27), (0, 29)]

product bonds broken:

[(0, 0), (0, 33)]

[(0, 21), (0, 29)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 2)]

[(0, 27), (0, 29)]

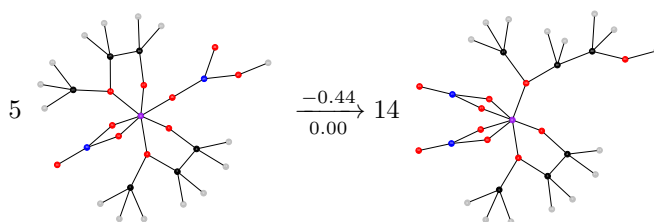
product bonds broken:

[(0, 0), (0, 6)]

[(0, 25), (0, 33)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 17)]

[(0, 27), (0, 29)]

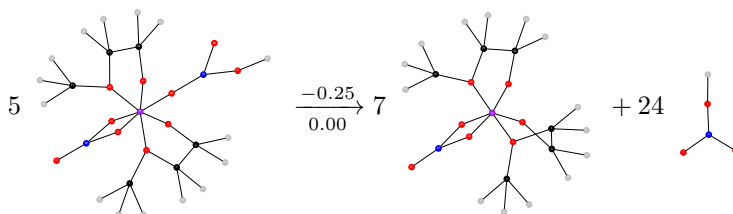
product bonds broken:

[(0, 0), (0, 31)]

[(0, 21), (0, 29)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 26)]

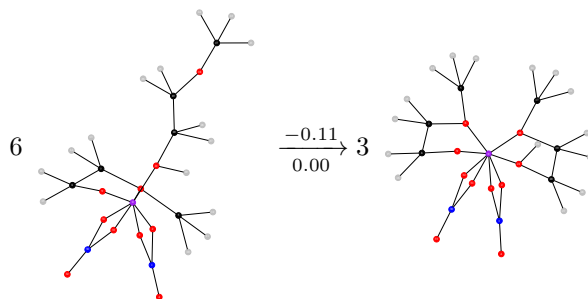
[(0, 1), (0, 7)]

product bonds broken:

[(0, 1), (0, 8)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(0, 5), (0, 11)]

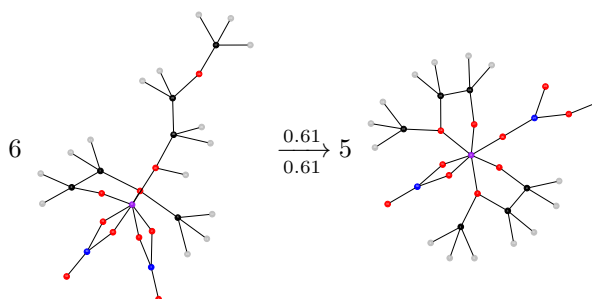
product bonds broken:

[(0, 0), (0, 18)]

[(0, 5), (0, 11)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 33)]

[(0, 21), (0, 29)]

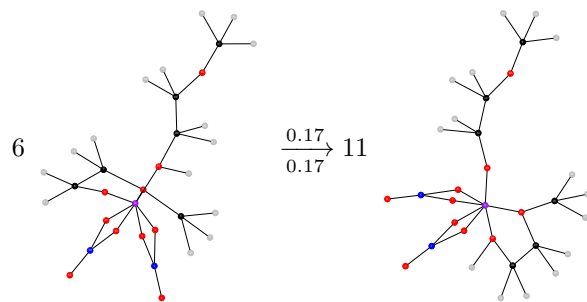
product bonds broken:

[(0, 0), (0, 2)]

[(0, 27), (0, 29)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

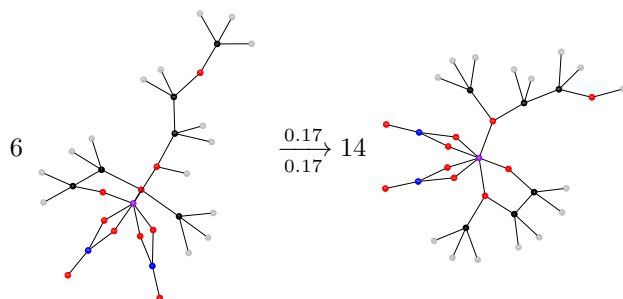
[(0, 21), (0, 29)]

product bonds broken:

[(0, 25), (0, 33)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 9)]

[(0, 21), (0, 29)]

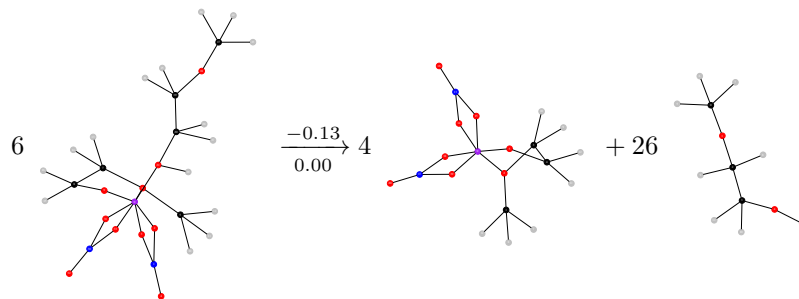
product bonds broken:

[(0, 0), (0, 2)]

[(0, 21), (0, 29)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

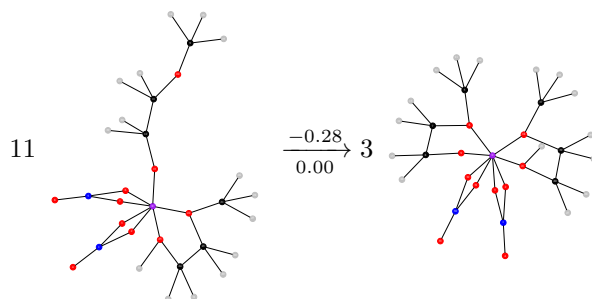
[(0, 0), (0, 21)]

[(0, 5), (0, 11)]

product bonds broken:

[(0, 1), (0, 6)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

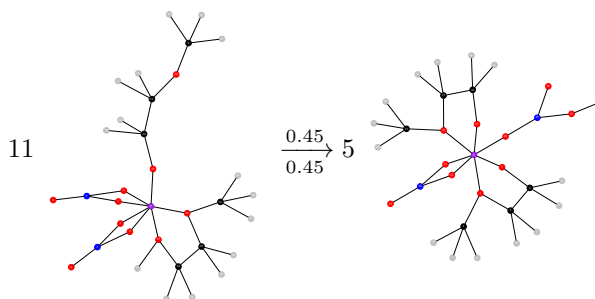
[(0, 9), (0, 14)]

product bonds broken:

[(0, 0), (0, 6)]

[(0, 5), (0, 11)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 6)]

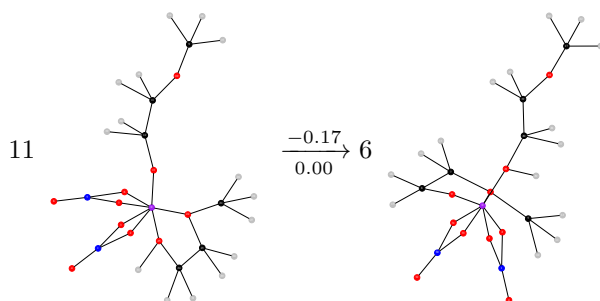
[(0, 25), (0, 33)]

product bonds broken:

[(0, 0), (0, 2)]

[(0, 27), (0, 29)]

fragment matching found
Terminal.KEEP



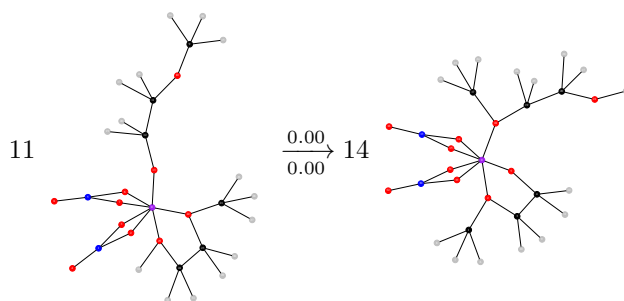
reactant bonds broken:

[(0, 25), (0, 33)]

product bonds broken:

[(0, 21), (0, 29)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 13)]

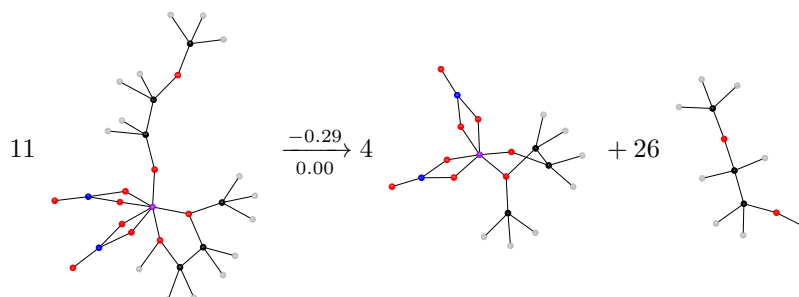
[(0, 25), (0, 33)]

product bonds broken:

[(0, 0), (0, 18)]

[(0, 21), (0, 29)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 13)]

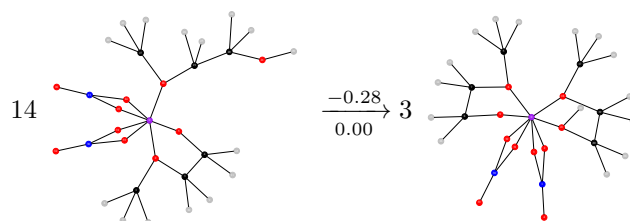
[(0, 25), (0, 33)]

product bonds broken:

[(1, 4), (1, 12)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(0, 1), (0, 8)]

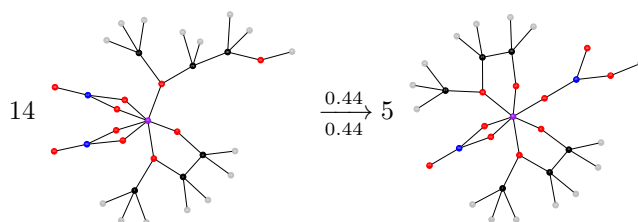
product bonds broken:

[(0, 0), (0, 21)]

[(0, 5), (0, 11)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 31)]

[(0, 21), (0, 29)]

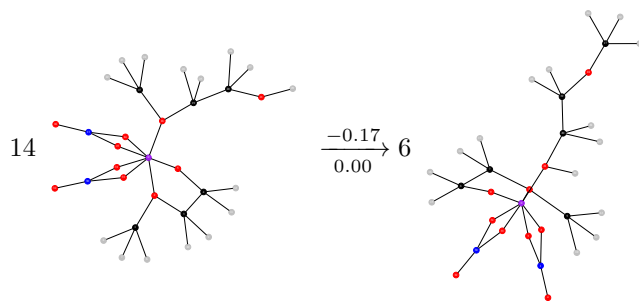
product bonds broken:

[(0, 0), (0, 17)]

[(0, 27), (0, 29)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 2)]

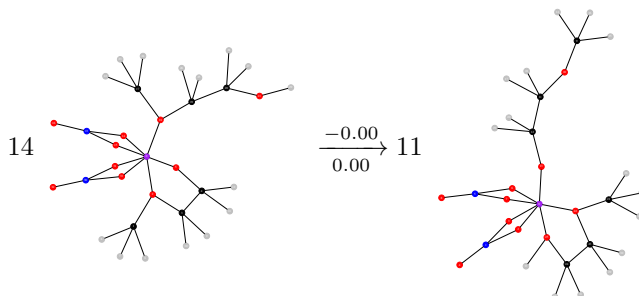
[(0, 21), (0, 29)]

product bonds broken:

[(0, 0), (0, 9)]

[(0, 21), (0, 29)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 2)]

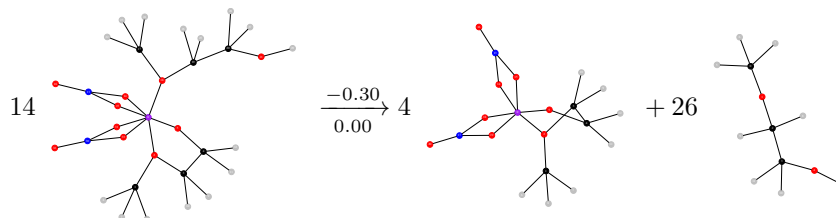
[(0, 1), (0, 8)]

product bonds broken:

[(0, 0), (0, 25)]

[(0, 9), (0, 14)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 18)]

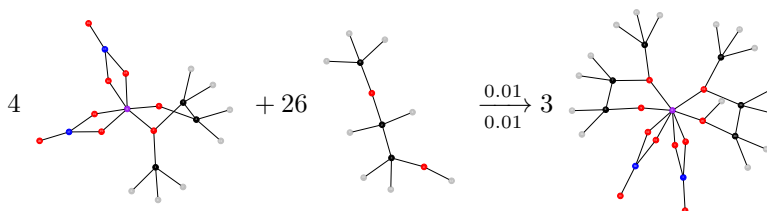
[(0, 1), (0, 8)]

product bonds broken:

[(0, 1), (0, 6)]

fragment matching found

Terminal.KEEP



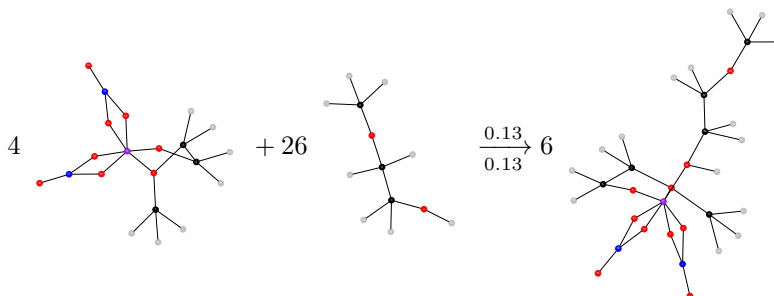
reactant bonds broken:product bonds broken:

[(0, 0), (0, 18)]

[(0, 0), (0, 21)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(1, 0), (1, 7)]

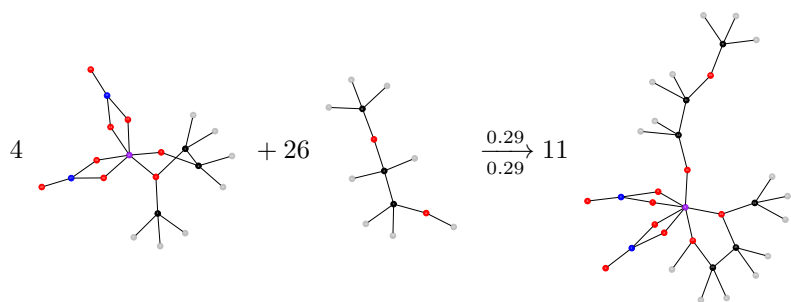
product bonds broken:

[(0, 0), (0, 21)]

[(0, 17), (0, 23)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(1, 4), (1, 12)]

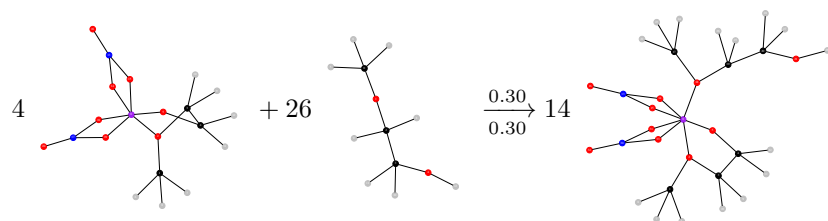
product bonds broken:

[(0, 0), (0, 13)]

[(0, 25), (0, 33)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(1, 0), (1, 7)]

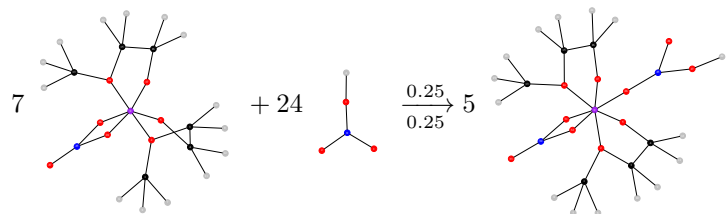
product bonds broken:

[(0, 0), (0, 18)]

[(0, 17), (0, 23)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

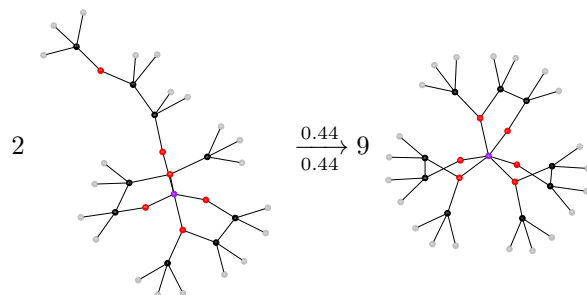
[(1, 3), (1, 4)]

product bonds broken:

[(0, 0), (0, 26)]

[(0, 27), (0, 29)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

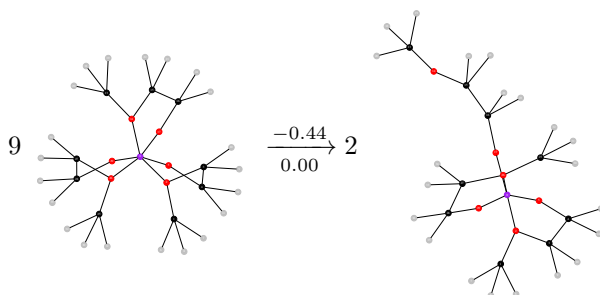
[(0, 1), (0, 8)]

product bonds broken:

[(0, 0), (0, 2)]

[(0, 13), (0, 19)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

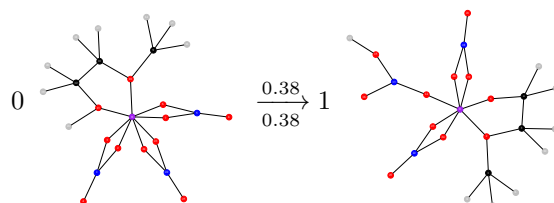
[(0, 0), (0, 2)]

[(0, 1), (0, 8)]

product bonds broken:

[(0, 13), (0, 18)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

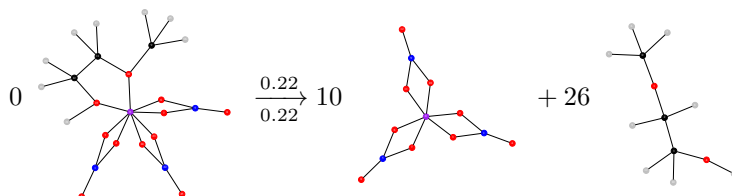
[(0, 0), (0, 3)]

[(0, 13), (0, 21)]

product bonds broken:

[(0, 15), (0, 17)]

fragment matching found
Terminal.KEEP



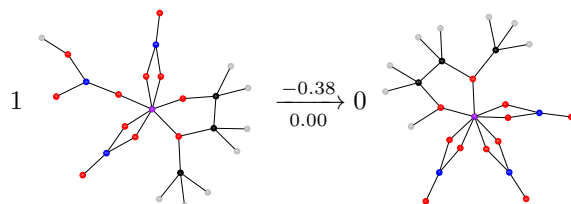
reactant bonds broken:

[(0, 0), (0, 10)]

[(0, 0), (0, 13)]

product bonds broken:

fragment matching found
Terminal.KEEP



reactant bonds broken:

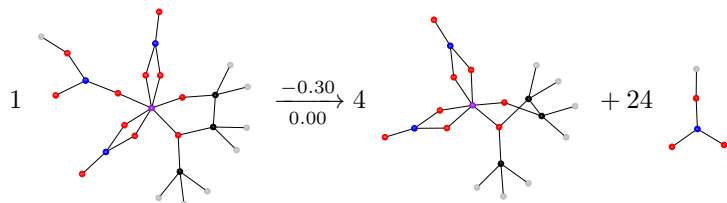
[(0, 15), (0, 17)]

product bonds broken:

[(0, 0), (0, 3)]

[(0, 13), (0, 21)]

fragment matching found
Terminal.KEEP



reactant bonds broken:

[(0, 0), (0, 14)]

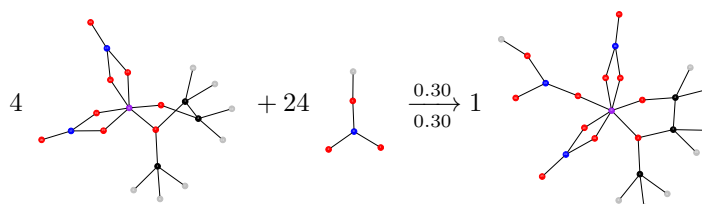
[(0, 1), (0, 6)]

product bonds broken:

[(0, 1), (0, 6)]

fragment matching found

Terminal.KEEP



reactant bonds broken:

[(1, 3), (1, 4)]

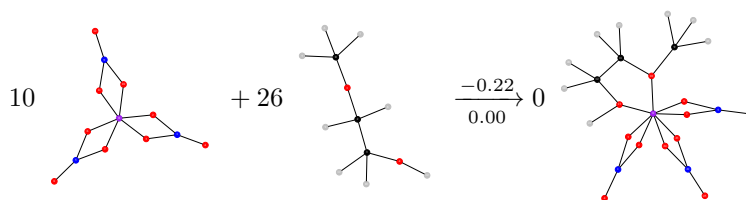
product bonds broken:

[(0, 0), (0, 14)]

[(0, 15), (0, 17)]

fragment matching found

Terminal.KEEP



reactant bonds broken:product bonds broken:

[(0, 0), (0, 10)]

[(0, 0), (0, 13)]