

Table S8D. Heck reaction database of trisubstituted alkene alkene as reactant

Reaction ID	Reaction SMILES
1	<chem>BrC1CCC(I)CC1.CCOC(=O)/C(F)=C\CCc1ccccc1>>CCOC(=O)/C(F)=C(\CCc1ccccc1)c1ccc(Br)cc1</chem>
2	<chem>CC(=O)c1ccc(I)cc1.CCOC(=O)/C(F)=C\CCc1ccccc1>>CCOC(=O)/C(F)=C(\CCc1ccccc1)c1ccc(C(C)=O)cc1</chem>
3	<chem>CCOC(=O)/C(F)=C\CCc1ccccc1.COC(=O)c1ccccc1I>>CCOC(=O)/C(F)=C(\CCc1ccccc1)c1ccccc1C(=O)OC</chem>
4	<chem>COc1ccc(I)cc1.Cc1ccc(S(=O)(=O)/C=C2/C(F)(F)C2(C)C(C)(C)C)cc1>>COc1ccc(/C(=C2/C(F)(F)C2(C)C(C)(C)C)S(=O)(=O)c2ccc(C)cc2)cc1</chem>
5	<chem>Cc1ccc(I)cc1.Cc1ccc(S(=O)(=O)/C=C2/C(C)(C)C2(F)F)cc1>>Cc1ccc(/C(=C2/C(C)(C)C2(F)F)S(=O)(=O)c2ccc(C)cc2)cc1</chem>
6	<chem>CCC1(C)/C=C\S(=O)(=O)c2ccc(C)cc2)C1(F)F.COc1ccc(I)cc1>>CCC1(C)/C(=C(/c2ccc(OC)cc2)S(=O)(=O)c2ccc(C)cc2)C1(F)F</chem>
7	<chem>Cc1ccc(S(=O)(=O)/C=C2/C(C)(C)C2(F)F)cc1.Ic1ccccc1>>Cc1ccc(S(=O)(=O)/C(=C2/C(C)(C)C2(F)F)c2ccccc2)cc1</chem>
8	<chem>Cc1ccc(S(=O)(=O)/C=C2/C(C)(C)C2(F)F)cc1.Clc1ccc(I)cc1>>Cc1ccc(S(=O)(=O)/C(=C2/C(C)(C)C2(F)F)c2ccc(Cl)cc2)cc1</chem>
9	<chem>BrC1CCC(OCCCCc2ccccc2)cc1.C/C=C\CCOC(=O)OCC>>CCOC(=O)/C(CCO)=C(\C)c1ccc(OCCCCc2ccccc2)cc1</chem>
10	<chem>CC/C(=C\c1ccccc1)c1ccccc1.CN(C)CCOC1ccc(Br)cc1>>CC/C(=C(\c1ccccc1)c1ccc(OCCN(C)C)cc1)c1ccccc1</chem>
11	<chem>COc1ccc(I)cc1.Cc1ccc(S(=O)(=O)/C=C2/C(C)(C)C2(F)F)cc1>>COc1ccc(/C(=C2/C(C)(C)C2(F)F)S(=O)(=O)c2ccc(C)cc2)cc1</chem>
12	<chem>CCOC(=O)/C(F)=C\CCc1ccccc1.Ic1ccccc1>>CCOC(=O)/C(F)=C(\CCc1ccccc1)c1ccccc1</chem>
13	<chem>COc1ccc(I)cc1.Cc1ccc(S(=O)(=O)/C=C2/C(F)(F)C23CCCCC3)cc1>>COc1ccc(/C(=C2/C(F)(F)C23CCCCC3)S(=O)(=O)c2ccc(C)cc2)cc1</chem>
14	<chem>CCOC(=O)/C(F)=C\CCc1ccccc1.COc1ccc(I)cc1>>CCOC(=O)/C(F)=C(\CCc1ccccc1)c1ccc(OC)cc1</chem>
15	<chem>C/C=C\NC(=O)OC(C)(C)C(=O)OC.CN(C)c1ccc(I)cc1>>COC(=O)/C(NC(=O)OC(C)(C)C)=C(\C)c1ccc(N(C)C)cc1</chem>
16	<chem>CC=C(c1ccccc1)c1c(OCc2cc(OC)ccc2Br)c(=O)n(C)c(=O)n1C>>COc1ccc2c(c1)COc1c(n(C)c(=O)n(C)c1=O)/C(c1ccccc1)=C\2C</chem>
17	<chem>C[C@@H](OC(=O)[C@@H](C/C=C1\CCN(c2ccccc2)C1=O)Nc1cc(Cl)ccc1I)C(=O)OC(C)(C)C>>C[C@@H](OC(=O)[C@@H]1C/C(=C2/CCN(c3ccccc3)C2=O)c2ccc(Cl)cc2N1)C(=O)OC(C)(C)C</chem>
18	<chem>CC(C)COC(=O)[C@@H](C)OC(=O)[C@@H](C/C=C1\CCN([13c]2[13cH][13cH][13cH][13cH][13cH]2)C1=O)Nc1cc(Cl)ccc1I>>CC(C)COC(=O)[C@@H](C)OC(=O)[C@@H]1C/C(=C2/CCN([13c]3[13cH][13cH][13cH][13cH]3)C2=O)c2ccc(Cl)cc2N1</chem>
19	<chem>COC(=O)/C=C\CCN(C(=O)OC(C)(C)C)C(=O)c1c(I)c2ccccc2n1C(=O)OC(C)(C)COC1ccccc1>>CO</chem>
20	<chem>C(=O)/C(OCc1ccccc1)=C1/CCN(C(=O)OC(C)(C)C)C(=O)c2c1c1ccccc1n2C(=O)OC(C)(C)C</chem>
21	<chem>CCOC(=O)[C@@H](C/C=C1\CCN(c2ccccc2)C1=O)Nc1cc(Cl)ccc1I>>CCOC(=O)[C@@H]1C/C(=C2/CCN(c3ccccc3)C2=O)c2ccc(Cl)cc2N1</chem>
22	<chem>CC(C)COC(=O)[C@@H](C)OC(=O)[C@@H](C/C=C1\CCN([14c]2[14cH][14cH][14cH][14cH][14cH]2)C1=O)Nc1cc(Cl)ccc1I>>CC(C)COC(=O)[C@@H](C)OC(=O)[C@@H]1C/C(=C2/CCN([14c]3[14cH][14cH][14cH][14cH]3)C2=O)c2ccc(Cl)cc2N1</chem>
22	<chem>CC=C(c1ccccc1)c1c(OCc2ccccc2Br)c(=O)n(C)c(=O)n1C>>C/C1=C(\c2ccccc2)c2c(c(=O)n(C)c(=O)n2C)OCc2ccccc21</chem>