

MIL-53_Cr_with1CO2uc-NP300MPa

data_MIL-53(Cr)with1CO2uc-NP300MPa-2

_audit_creation_date 2011-10-21
_audit_creation_method 'Materials Studi o'
_symmetry_space_group_name_H-M 'P1'
_symmetry_Int_Tables_number 1
_symmetry_cell_setting triclinic

loop_

_symmetry_equiv_pos_as_xyz

x, y, z

_cell_length_a 19.2490
_cell_length_b 7.8750
_cell_length_c 6.5460
_cell_angle_alpha 90.0000
_cell_angle_beta 95.4900
_cell_angle_gamma 90.0000

loop_

_atom_site_label

_atom_site_type_symbol

_atom_site_fract_x

_atom_site_fract_y

_atom_site_fract_z

_atom_site_U_iso_or_equiv

_atom_site_adp_type

_atom_site_occupancy

O1	O	0.58418	0.12032	0.15225	0.04000	Ui so	1.00
C2	C	0.70096	0.28383	0.61682	0.04000	Ui so	1.00
H3	H	0.66501	0.31913	0.69911	0.04000	Ui so	1.00
O4	O	0.06354	0.32630	0.93670	0.04000	Ui so	1.00
C5	C	0.22775	0.30001	0.79026	0.04000	Ui so	1.00
H6	H	0.21165	0.32670	0.63315	0.04000	Ui so	1.00
C7	C	0.67820	0.22602	0.40902	0.04000	Ui so	1.00
C8	C	0.60780	0.14740	0.33873	0.04000	Ui so	1.00
O9	O	0.08418	0.62032	0.15225	0.04000	Ui so	1.00
C10	C	0.20096	0.78383	0.61682	0.04000	Ui so	1.00
H11	H	0.16501	0.81913	0.69911	0.04000	Ui so	1.00
O12	O	0.56354	0.82630	0.93670	0.04000	Ui so	1.00
C13	C	0.72775	0.80001	0.79026	0.04000	Ui so	1.00
H14	H	0.71165	0.82670	0.63315	0.04000	Ui so	1.00
C15	C	0.17820	0.72602	0.40902	0.04000	Ui so	1.00
C16	C	0.10780	0.64740	0.33873	0.04000	Ui so	1.00
O17	O	0.41582	0.12032	0.34775	0.04000	Ui so	1.00
C18	C	0.29904	0.28383	0.88318	0.04000	Ui so	1.00
H19	H	0.33499	0.31913	0.80089	0.04000	Ui so	1.00
O20	O	0.93646	0.32630	0.56330	0.04000	Ui so	1.00
C21	C	0.77225	0.30001	0.70974	0.04000	Ui so	1.00
H22	H	0.78835	0.32670	0.86685	0.04000	Ui so	1.00
C23	C	0.32180	0.22602	0.09098	0.04000	Ui so	1.00
C24	C	0.39220	0.14740	0.16127	0.04000	Ui so	1.00
O25	O	0.91582	0.62032	0.34775	0.04000	Ui so	1.00
C26	C	0.79904	0.78383	0.88318	0.04000	Ui so	1.00
H27	H	0.83499	0.81913	0.80089	0.04000	Ui so	1.00
O28	O	0.43646	0.82630	0.56330	0.04000	Ui so	1.00
C29	C	0.27225	0.80001	0.70974	0.04000	Ui so	1.00
H30	H	0.28835	0.82670	0.86685	0.04000	Ui so	1.00
C31	C	0.82180	0.72602	0.09098	0.04000	Ui so	1.00
C32	C	0.89220	0.64740	0.16127	0.04000	Ui so	1.00
O33	O	0.41582	0.87968	0.84775	0.04000	Ui so	1.00
C34	C	0.29904	0.71617	0.38318	0.04000	Ui so	1.00
H35	H	0.33499	0.68087	0.30089	0.04000	Ui so	1.00
O36	O	0.93646	0.67370	0.06330	0.04000	Ui so	1.00
C37	C	0.77225	0.69999	0.20974	0.04000	Ui so	1.00
H38	H	0.78835	0.67330	0.36685	0.04000	Ui so	1.00
C39	C	0.32180	0.77398	0.59098	0.04000	Ui so	1.00
C40	C	0.39220	0.85260	0.66127	0.04000	Ui so	1.00
O41	O	0.91582	0.37968	0.84775	0.04000	Ui so	1.00
C42	C	0.79904	0.21617	0.38318	0.04000	Ui so	1.00
H43	H	0.83499	0.18087	0.30089	0.04000	Ui so	1.00
O44	O	0.43646	0.17370	0.06330	0.04000	Ui so	1.00

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C45	C	0.27225	0.19999	0.20974	0.04000	Ui so	1.00
H46	H	0.28835	0.17330	0.36685	0.04000	Ui so	1.00
C47	C	0.82180	0.27398	0.59098	0.04000	Ui so	1.00
C48	C	0.89220	0.35260	0.66127	0.04000	Ui so	1.00
O49	O	0.58418	0.87968	0.65225	0.04000	Ui so	1.00
C50	C	0.70096	0.71617	0.11682	0.04000	Ui so	1.00
H51	H	0.66501	0.68087	0.19911	0.04000	Ui so	1.00
O52	O	0.06354	0.67370	0.43670	0.04000	Ui so	1.00
C53	C	0.22775	0.69999	0.29026	0.04000	Ui so	1.00
H54	H	0.21165	0.67330	0.13315	0.04000	Ui so	1.00
C55	C	0.67820	0.77398	0.90902	0.04000	Ui so	1.00
C56	C	0.60780	0.85260	0.83873	0.04000	Ui so	1.00
O57	O	0.08418	0.37968	0.65225	0.04000	Ui so	1.00
C58	C	0.20096	0.21617	0.11682	0.04000	Ui so	1.00
H59	H	0.16501	0.18087	0.19911	0.04000	Ui so	1.00
O60	O	0.56354	0.17370	0.43670	0.04000	Ui so	1.00
C61	C	0.72775	0.19999	0.29026	0.04000	Ui so	1.00
H62	H	0.71165	0.17330	0.13315	0.04000	Ui so	1.00
C63	C	0.17820	0.27398	0.90902	0.04000	Ui so	1.00
C64	C	0.10780	0.35260	0.83873	0.04000	Ui so	1.00
Cr65	Cr	0.50000	1.00000	1.00000	0.04000	Ui so	1.00
Cr66	Cr	-0.00000	0.50000	1.00000	0.04000	Ui so	1.00
Cr67	Cr	0.50000	1.00000	0.50000	0.04000	Ui so	1.00
Cr68	Cr	-0.00000	0.50000	0.50000	0.04000	Ui so	1.00
O69	O	0.50000	0.85499	0.25000	0.04000	Ui so	1.00
O70	O	0.00000	0.35499	0.25000	0.04000	Ui so	1.00
O71	O	0.50000	0.14501	0.75000	0.04000	Ui so	1.00
O72	O	0.00000	0.64501	0.75000	0.04000	Ui so	1.00
H73	H	0.00000	0.24869	0.25000	0.04000	Ui so	1.00
H74	H	0.50000	0.74869	0.25000	0.04000	Ui so	1.00
H75	H	0.00000	0.75131	0.75000	0.04000	Ui so	1.00
H76	H	0.50000	0.25131	0.75000	0.04000	Ui so	1.00
C77	C	1.46353	1.53804	4.84723	0.04000	Ui so	1.00
O78	O	1.42216	1.57527	4.95476	0.04000	Ui so	1.00
O79	O	1.50562	1.50570	4.74000	0.04000	Ui so	1.00

loop_

_geom_bond_atom_site_label_1

_geom_bond_atom_site_label_2

_geom_bond_distance

_geom_bond_site_symmetry_2

_ccdc_geom_bond_type

O1	C8	1.279	.	S
O1	Cr65	2.051	1_544	S
C2	H3	0.958	.	S
C2	C7	1.461	.	S
C2	C21	1.452	.	S
O4	Cr66	1.907	.	S
O4	C64	1.133	.	S
C5	C18	1.452	.	S
C5	C63	1.303	.	S
C5	H6	1.066	.	S
C7	C61	1.303	.	S
C7	C8	1.521	.	S
C8	O60	1.133	.	S
O9	C16	1.279	.	S
O9	Cr66	2.051	1_554	S
C10	H11	0.958	.	S
C10	C15	1.461	.	S
C10	C29	1.452	.	S
O12	Cr65	1.907	.	S
O12	C56	1.133	.	S
C13	C26	1.452	.	S
C13	C55	1.303	.	S
C13	H14	1.066	.	S
C15	C53	1.303	.	S
C15	C16	1.521	.	S
C16	O52	1.133	.	S
O17	C24	1.279	.	S

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017	Cr67	2.051	1_545	S
C18	H19	0.958	.	S
C18	C23	1.461	1_556	S
020	C48	1.133	.	S
020	Cr68	1.907	1_655	S
C21	C47	1.303	.	S
C21	H22	1.066	.	S
C23	C45	1.303	.	S
C23	C24	1.521	.	S
C23	C18	1.461	1_554	S
C24	O44	1.133	.	S
025	C32	1.279	.	S
025	Cr68	2.051	1_655	S
C26	H27	0.958	.	S
C26	C31	1.461	1_556	S
028	Cr67	1.907	.	S
028	C40	1.133	.	S
C29	C39	1.303	.	S
C29	H30	1.066	.	S
C31	C37	1.303	.	S
C31	C32	1.521	.	S
C31	C26	1.461	1_554	S
C32	O36	1.133	.	S
033	Cr65	2.051	.	S
033	C40	1.279	.	S
C34	H35	0.958	.	S
C34	C39	1.461	.	S
C34	C53	1.452	.	S
036	Cr66	1.907	1_654	S
C37	C50	1.452	.	S
C37	H38	1.066	.	S
C39	C40	1.521	.	S
041	C48	1.279	.	S
041	Cr66	2.051	1_655	S
C42	H43	0.958	.	S
C42	C47	1.461	.	S
C42	C61	1.452	.	S
044	Cr65	1.907	1_544	S
C45	C58	1.452	.	S
C45	H46	1.066	.	S
C47	C48	1.521	.	S
049	Cr67	2.051	.	S
049	C56	1.279	.	S
C50	H51	0.958	.	S
C50	C55	1.461	1_554	S
052	Cr68	1.907	.	S
C53	H54	1.066	.	S
C55	C56	1.521	.	S
C55	C50	1.461	1_556	S
057	Cr68	2.051	.	S
057	C64	1.279	.	S
C58	H59	0.958	.	S
C58	C63	1.461	1_554	S
060	Cr67	1.907	1_545	S
C61	H62	1.066	.	S
C63	C64	1.521	.	S
C63	C58	1.461	1_556	S
Cr65	O1	2.051	1_566	S
Cr65	O44	1.907	1_566	S
Cr65	O71	1.996	1_565	S
Cr65	O69	1.996	1_556	S
Cr66	O72	1.996	.	S
Cr66	O9	2.051	1_556	S
Cr66	O36	1.907	1_456	S
Cr66	O41	2.051	1_455	S
Cr66	O70	1.996	1_556	S
Cr67	O69	1.996	.	S
Cr67	O17	2.051	1_565	S

MIL-53_Cr_wi th1CO2uc-NP300MPa			
Cr67	060	1.907	1_565 S
Cr67	071	1.996	1_565 S
Cr68	072	1.996	. S
Cr68	070	1.996	. S
Cr68	020	1.907	1_455 S
Cr68	025	2.051	1_455 S
069	H74	0.837	. S
069	Cr65	1.996	1_554 S
070	H73	0.837	. S
070	Cr66	1.996	1_554 S
071	H76	0.837	. S
071	Cr65	1.996	1_545 S
071	Cr67	1.996	1_545 S
072	H75	0.837	. S
C77	078	1.150	. S
C77	079	1.150	. S