# Supplementary Material Bond Length and Bond Valence Relationships for Chromium Oxides, Chromium Sulfides, Molybdenum Oxides, and Molybdenum Sulfides, by Labrecque and Hardcastle

a0	0.529177	Kantor, A.; Kantor, I.; Mer	lini, M.; Glazyrin, K.; Presch	er, C.; Hanfland, M.; Dubrovins	ky, L.
		High-pressure structural studi	es of eskolaite by means of sin	gle-crystal X-ray diffraction Note:	P = 63.9 GPa
COD: 90140	67	American Mineralogist, 2012	, 97, 1764-1770		
Cr2O3		1.963	0.553939238		
		1.963	0.553939238		
		1.963	0.553939238		
		2.012	0.477527918		
		2.012	0.477527918		
		2.012	0.477527918		
		3.37	0.007806255	Cr-Cr	
		3.37	0.007806255		
		3.37	0.007806255		
		3.639	0.003455827		
		3.639	0.003455827		
		3.639	0.003455827		
		3.685	0.003006321		
		3.685	0.003006321		
		3.982	0.001222668		
		3.982	0.001222668		
		3.982	0.001222668		
		4.342	0.000410866		
		4.554	0.000216171		
		4.554	0.000216171		
		4.554	0.000216171		
		4.57	0.000205944		
		4.57	0.000205944		
		4.57	0.000205944		
		4.591	0.000193251		
		4.591	0.000193251		
		4.591	0.000193251		
		4.591	0.000193251		
		4.591	0.000193251		
		4.833	9.28434E-05		
		4.833	9.28434E-05		
		4.833	9.28434E-05	3.14079	0.019822

#### Belokoneva, E. L.; Shcherbakova, Y. K.

Electron density in synthetic eskolaite Cr2O3 with a corundum structure and its relation to antiferromagnetic propertiesCOD: 9016327Russian Journal of Inorganic Chemistry, 2003, 48, 861-869Cr2O31.9630.5539392381.9630.553939238

-	-
C,	· ^
- UI	-0

1.963	0.553939238	Cr-Cr	
2.012	0.477527918		
2.012	0.477527918		
2.0120	0.477527918		
3.37	0.007806255		
3.37	0.007806255		
3.3700	0.007806255		
3.637	0.003476828		
3.637	0.003476828		
3.637	0.003476828		
3.684	0.003015442		
3.6840	0.003015442		
3.6840	0.003015442		
3.9790	0.00123383		
3.9790	0.00123383		
3.9790	0.00123383		
4.343	0.000409623		
4.343	0.000409623		
4.553	0.000216827		
4.553	0.000216827		
4.553	0.000216827		
4.569	0.000206568		
4.569	0.000206568		
4.569	0.000206568		
4.591	0.000193251		
4.591	0.000193251		
4.591	0.000193251		
4.5910	0.000193251		
4.5910	0.000193251		
4.83	9.3691E-05		
4.8300	9.3691E-05	3.144242	0.020806

#### Sawada, H.

Residual electron density study of chromium sesquioxide by crystal structure and scattering factor refinement

	Materials Research Bulletin, 1994, 29, 239-245		
	1.964	0.53889571	
COD: 9014036	1.964	0.552263767	
Cr2O3	1.964	0.552263767	Cr-Cr
	2.013	0.476083564	
	2.013	0.476083564	
	3.372	0.007759104	
Cr-O	3.372	0.007759104	
	3.372	0.007759104	

3.64	0.003445375	
3.64	0.003445375	
3.64	0.003445375	
3.687	0.002988163	
3.687	0.002988163	
3.687	0.002988163	
3.983	0.00121897	
3.983	0.00121897	
4.346	0.000405918	
4.346	0.000405918	
4.557	0.000214215	
4.557	0.000214215	
4.557	0.000214215	
4.573	0.00020408	
4.573	0.00020408	
4.573	0.00020408	
4.595	0.000190923	
4.595	0.000190923	
4.595	0.000190923	
4.595	0.000190923	2.643437

0.127137

#### Lu Zhonghua; Dahn, J.R.

Structure and electrochemistry of layered Li (Crx Li(1/3-x/3) Mn(2/3-2x/3)) O2

Journal of the Electrocher	nical Society, 2002, 149, A1454-A1459
4.725	0.000128776
4.561	0.000211635 Cr-Cr
4.561	0.000211635
3.729	0.002631176
3.52	0.00495571
4.725	0.000128776
4.561	0.000211635
1.994	0.504288641
4.561	0.000211635
3.52	0.00495571
3.52	0.00495571
4.725	0.000128776
4.561	0.000211635
1.994	0.504288641
4.561	0.000211635
1.994	0.504288641
1.994	0.504288641

COD: 1532839 CrLiO2

4.561	0.000211635	
4.561	0.000211635	
1.994	0.504288641	
4.561	0.000211635	
3.52	0.00495571	
3.52	0.00495571	
4.725	0.000128776	
4.561	0.000211635	
1.994	0.504288641	
4.725	0.000128776	
3.52	0.00495571	
3.729	0.002631176	
4.561	0.000211635	
4.725	0.000128776	
4.561	0.000211635	
4.725	0.000128776	3.06417

0.004118

#### Tarantino, Serena C.; Giannini, Mattia; Carpenter, Michael A.; Zema, Michele

Cooperative Jahn–Teller effect and the role of strain in the tetragonal-to-cubic phase transition in Mg IUCrJ, 2016, 3

	,	
COD: 1543900	4.783	0.000108026
Cr2MgO4	4.783	0.000108026
	4.617	0.000178614
	4.617	0.000178614
	3.604	0.003842353
	3.444	0.00623864
	1.993	0.505818565
	3.664	0.003203779
	4.614	0.000180245
	3.604	0.003842353
	4.617	0.000178614
	4.617	0.000178614
	4.617	0.000178614
	1.993	0.505818565
	1.993	0.505818565
	4.617	0.000178614
	4.783	0.000108026
	3.664	0.003203779
	3.664	0.003203779
	1.993	0.505818565
	3.444	0.00623864
	4.783	0.000108026

3.664	0.003203779	
4.617	0.000178614	
4.617	0.000178614	
4.783	0.000108026	
4.783	0.000108026	
4.617	0.000178614	2.058687

Wooklov T I R · V	lvisakor F R · Vagor	R I. Stonhons IF	• Wiegel R • Mengis M	Bauer M R · Abrahams S C
Weakiey, 1. J. K., 1	110anui, E. K., 1 agui	K. J., Duphuns, J.E.	, Witgel, K., Mithglo, M	, Dauci, M. K., Abi analis, S. C.

Phase transitions in K~2~Cr~2~O~7~ and structural redeterminations of phase II

Acta Crystallographica, Section B, 2004, 60, 714-724

	J	, , ,	
COD: 2102643	5.742	5.91411E-06	
Cr2K2O7	4.535	0.000228978	
	4.317	0.00044319	
	5.134	3.73045E-05	
	4.79	0.00010576	
	4.346	0.000405918	
	1.611	1.608962326	
	4.661	0.000156326	
	3.753	0.002446674	
	1.614	1.594406803	
	3.996	0.0011719	
	4.003	0.001147311	
	3.766	0.002352196	
	1.787	0.944069577	
	4.499	0.000255361	
	5.395	1.69198E-05	
	1.603	1.648429985	
	3.667	0.003174796	
	5.721	6.30256E-06	
	4.331	0.000424787	
	4.752	0.000118662	
	4.542	0.000224174	
	5.127	3.8104E-05	
	3.993	0.001182598	
	3.813	0.002040052	
	5.001	5.58128E-05	
	4.882	8.00364E-05	5.81

5.811988

0.035349

Crottaz, O.; Kubel, F.

COD: 8104065

Crystal structure of copper(I) chromium(III) oxide, 2HCu Cr O2 Zeitschrift fuer Kristallographie (149,1979-), 1996, 211, 481-481 Cr-O

5	5.59821E-05
5	5.59821E-05
4.653	0.00016016
3.578	0.004157214
4.653	0.00016016
4.653	0.00016016
1.989	0.511984815
1.989	0.511984815
4.653	0.00016016
3.578	0.004157214
1.989	0.511984815
3.578	0.004157214
4.653	0.00016016
4.653	0.00016016
4.652	0.000160646
4.653	0.00016016
3.578	0.004157214
1.989	0.511984815
3.578	0.004157214
4.652	0.000160646
1.989	0.511984815
1.989	0.511984815
4.652	0.000160646
4.652	0.000160646
3.578	0.004157214
4.653	0.00016016
5	5.59821E-05
5	5.59821E-05
5	5.59821E-05

3.099056

0.009812

Jimenez, E.; Fernandez, M.T.; Isasi, J.; Saez-Puche, R.

COD: 1531650	Magnetic behavior of Er Cr O4 oxide			
CrErO4	Journal of Alloys Compd., 2002,	Journal of Alloys Compd., 2002, 2000, 369-374		
	4.639	0.000167099		
Cr-O	5.499	1.23474E-05		
	5.271	2.46336E-05		
	4.205	0.000622206		
	5.92	3.44919E-06		
	3.643	0.003414206		
	3.788	0.002200548		
	5.271	2.46336E-05		
	3.788	0.002200548		
	4.639	0.000167099		

4.639	0.000167099
3.788	0.002200548
1.692	1.258879005
4.205	0.000622206
3.788	0.002200548
5.499	1.23474E-05
5.463	1.37701E-05
4.639	0.000167099
1.692	1.258879005
1.692	1.258879005
5.92	3.44919E-06
3.463	0.00588971
3.758	0.002409895
4.639	0.000167099
3.788	0.002200548
4.639	0.000167099
4.639	0.000167099
3.788	0.002200548
3.463	0.00588971
5.271	2.46336E-05
5.271	2.46336E-05

3.810002

# W.A. Dollase; H.St.C. O'Neill

COD: 2006190

Cr-O

The Spinels CuCr~2~O~4~ and CuRh~2~O~4~			
Acta Crystallographica Section C, 1997, 53, 657-659			
4.959	6.33852E-05		
3.588	0.00403317		
4.525	0.00023602		
4.712	0.000133948		
3.767	0.002345081		
4.559	0.000212921		
1.998	0.498215083		
3.588	0.00403317		
1.973	0.53741074		
4.712	0.000133948		
4.525	0.00023602		
1.996	0.501242663		
3.435	0.006411064		
4.813	9.86421E-05		
3.435	0.006411064		
4.525	0.00023602		
1.998	0.498215083		
4.712	0.000133948		

1.973	0.53741074		
1.998	0.498215083		
4.559	0.000212921		
3.767	0.002345081		
4.559	0.000212921		
4.712	0.000133948		
4.525	0.00023602		
4.498	0.000256136		
3.558	0.004416863		
4.813	9.86421E-05	3.10334	0.010679

#### Palatinus, Lukas; Dusek, Michal; El Bali, Brahim; Glaum, Robert

The incommensurately and commensurately modulated crystal structures of chromium(II) diphosphate

Acta Crystallographica Section B, 2006, 62, 556-566

COD: 2100549	2.0699	0.400706838
Cr207P2	5.899	3.67573E-06
	4.898	7.62497E-05
	4.139	0.000759911
	3.976	0.001245093
	5.27	2.47083E-05
	4.099	0.000857799
	3.081	0.018734625
	4.379	0.000367302
	5.01	5.43117E-05
	2.768	0.04835275
	3.504	0.005201818
	4.124	0.000795236
	4.654	0.000159676
	4.124	0.000795236
	3.925	0.001453103
	4.475	0.000274617
	2.02	0.46609467
	5.422	1.5591E-05
	5.674	7.2669E-06
	2.069	0.401800779
	3.674	0.003108184
	5.01	5.43117E-05
	4.158	0.000717409
	4.158	0.000717409
	2.069	0.401800779
	3.081	0.018734625
	4.654	0.000159676
	4.139	0.000759911

4.77	8	0.000109675		
3.50	4	0.005201818		
4.77	8	0.000109675		
5.42	2	1.5591E-05		
4.47	5	0.000274617		
3.92	5	0.001453103		
4.3	9	0.000355265		
4.09	9	0.000857799		
5.65	9	7.60471E-06		
4.89	8	7.62497E-05		
5.2	7	2.47083E-05		
5.89	9	3.67573E-06	1.782323	0.047383

Weakley, T. J. R.; Ylvisaker, E. R.; Yager, R. J.; Stephens, J.E.; Wiegel, R.; Mengis, M.; Bauer, M. R.; Abrahams, S. C.

Phase transitions in K~2~Cr~2~O~7~ and structural redeterminations of phase II

	Acta Crystallographica, Section	B, 2004, 60, 714-724
COD: 2102643	4.546	0.000221474
Cr-O	4.879	8.07671E-05
	5.4	1.66655E-05
	5.128	3.79888E-05
	5.002	5.5644E-05
	3.764	0.00236649
	3.664	0.003203779
	5.002	5.5644E-05
	4.008	0.001130065
	1.603	1.648429985
	3.807	0.00207747
	5.721	6.30256E-06
	5.882	3.86998E-06
	3.993	0.001182598
	3.754	0.002439273
	1.789	0.938367256
	4.753	0.000118303
	4.782	0.000108354
	1.614	1.594406803
	3.993	0.001182598
	4.387	0.000358508
	5.125	3.83356E-05
	4.534	0.000229672
	5.424	1.54969E-05
	4.348	0.000403466
	4.662	0.000155853
	4.76	0.000115821

5.797	5.00649E-06	
5.738	5.98621E-06	4.196819

#### Pérez-Cruz, María Ana; Elizalde-González, María de la Paz; Escudero, Roberto; Bernès, Sylvain;

At last! The single-crystal X-ray structure of a naturally occurring sample of the ilmenite-type oxide FeCrO~3~

COD: 2107479	Acta Crystallographica Section I	3, 2015, 71, 555-561	
	5.807	4.8571E-06	
CrFeO3	4.235	0.000568155	
	5.023	5.22145E-05	
	4.235	0.000568155	
	4.235	0.000568155	
	4.785	0.000107374	
	3.795	0.002154377	
	4.658	0.000157753	
	5.807	4.8571E-06	
	5.023	5.22145E-05	
	4.658	0.000157753	
	2.101	0.364680257	
	2.101	0.364680257	
	4.785	0.000107374	
	4.405	0.000339483	
	3.795	0.002154377	
	2.101	0.364680257	
	3.795	0.002154377	
	3.479	0.005611056	
	1.9	0.670414804	
	3.479	0.005611056	
	4.785	0.000107374	
	4.658	0.000157753	
	4.405	0.000339483	
	1.9	0.670414804	
	1.9	0.670414804	
	4.683	0.000146247	
	5.469	1.35221E-05	
	4.7	0.000138907	
	3.479	0.005611056	
	4.405	0.000339483	
	3.665	0.003194089	
	3.665	0.003194089	
	5.406	1.63653E-05	
	3.665	0.003194089	
	4.683	0.000146247	
	5.406	1.63653E-05	3.1

3.142274

0.020242

	Weil, Matthias; Stöger, Bertho	old			
	Spinel-type HgCr~2~O~4~ from	n single-crystal data			
COD: 2210102	Acta Crystallographica Section I	E, 2006, 62, i199-i200			
	3.885	0.001640286			
Cr-O	5.072	4.50119E-05			
	3.439	0.00633385			
	4.763	0.000114773			
	4.763	0.000114773			
	5.072	4.50119E-05			
	2.001	0.493707966			
	2.001	0.493707966			
	5.072	4.50119E-05			
	3.885	0.001640286			
	3.855	0.001796334			
	2.001	0.493707966			
	4.763	0.000114773			
	4.763	0.000114773			
	4.763	0.000114773			
	2.001	0.493707966			
	3.855	0.001796334			
	3.855	0.001796334			
	5.072	4.50119E-05			
	2.001	0.493707966			
	2.001	0.493707966			
	5.072	4.50119E-05			
	4.763	0.000114773			
	3.439	0.00633385			
	4.763	0.000114773			
	5.072	4.50119E-05			
	5.072	4.50119E-05			
	3.855	0.001796334			
	5.072	4.50119E-05	2.986545	0.000181	

#### Levy, D.; Diella, V.; Pavese, A.; Dapiaggi, M.; Sani, A.

P-V equation of state, thermal expansion, and P-T stability of synthetic zincochromite (ZnCr2O4 spinel) Sample: T = 298 K

COD: 9003703 Cr2O4Zn

American Mineralogist, 2005, 90, 1157-1162			
4.844	8.98007E-05		
4.844	8.98007E-05		
4.6	0.000188053		
3.693	0.002934342		
4.6	0.000188053		
4.844	8.98007E-05		

4.844	8.98007E-05		
3.693	0.002934342		
4.6	0.000188053		
1.954	0.569249082		
1.954	0.569249082		
3.367	0.007877519		
1.954	0.569249082		
3.693	0.002934342		
4.844	8.98007E-05		
4.6	0.000188053		
4.6	0.000188053		
3.693	0.002934342		
4.844	8.98007E-05		
3.367	0.007877519		
1.954	0.569249082		
1.954	0.569249082		
1.954	0.569249082		
4.6	0.000188053		
3.693	0.002934342		
4.6	0.000188053		
4.844	8.98007E-05		
4.844	8.98007E-05		
3.693	0.002934342		
4.844	8.98007E-05	3.45098	0.203383

**Nazar, L.F.; Rowsell, J.L.C.** Synthesis, structure, and solid-state electrochemical properties of Ce3 B O6: a new chromium(III) borate with the norbergite structure

	e	
COD: 7209462	Journal of Materials Chemistry, 2	2001, 11, 3228-3233
BCr3O6	4.403	0.000341546
	4.361	0.000387886
	3.693	0.002934342
	3.523	0.004910878
	4.652	0.000160646
	1.893	0.684782491
	1.907	0.65634857
	4.445	0.000300743
	3.531	0.004793299
	1.961	0.557305446
	5.231	2.78068E-05
	3.761	0.002388094
	3.482	0.005560296
	3.262	0.010827426

2.03	0.452187287		
3.805	0.002090095		
2.016	0.471776661		
4.501	0.000253818		
4.551	0.000218144		
3.815	0.00202773		
4.704	0.000137234		
4.367	0.0003809		
3.377	0.007642469	2.867784	0.017481

#### Daturi, M; Busca, G; Borel, M M; Leclaire, A; Piaggio, P

Vibrational and XRD study of the system Cd W O4 - Cd Mo O4 .

	Journal of Physical Chemistry, 1997,	101, 4358-4369		
COD: 1001800	1.751	1.550631		
CdMoO4	1.751	1.550631		
	1.751	1.550631		
	1.751	1.550631		
	2.85	0.048335		
	2.85	0.048335		
	2.856	0.047428		
	4.045	0.001113		
	4.045	0.001113		
	4.045	0.001113		
	4.071	0.001025		
	4.071	0.001025		
	4.071	0.001025		
	4.11	0.000906		
	4.11	0.000906		
	4.11	0.000906		
	4.11	0.000906		
	4.604	0.000191		
	4.604	0.000191		
	4.685	0.000148		
	4.685	0.000148		
	5.167	3.23E-05	6.357371	0.127714

13

## MoCaO4 Crichton W. Zeitschrift, 2004, 219

Mo-O

	4.95E-06	5.761
	2.69E-05	5.225
	0.001106	4.047
	0.000996	4.08
	0.00027	4.494
	8.12E-06	5.604
	0.00027	4.494
	1.75E-05	5.361
	1.07E-05	5.518
	0.001106	4.047
	0.079581	2.692
	1.05845	1.872
	0.000651	4.215
	0.001271	4.003
	0.000267	4.497
	2.69E-05	5.225
	0.000152	4.676
	1.75E-05	5.361
	0.001271	4.003
	1.05845	1.872
	0.085033	2.671
	0.00027	4.494
	0.002027	3.855
	1.05845	1.872
	0.00204	3.853
	9.43E-05	4.827
	0.085033	2.671
	0.001437	3.964
	0.001437	3.964
	0.000152	4.676
	1.86E-05	5.342
	9.43E-05	4.827
3.440687	0.000651	4.215

Sitepu, H.; O'Connor B H; Li, D. Comparative evaluation of the March and generalized spherical harmonic preferred orientation models using X-ray diffraction data for powders

Journal of Applied Crystallography, 2005, 38, 158-167

4.892 7.68E-05

COD: 9009669

MoO3

5.489	1.17E-05		
4.448	0.000312		
4.081	0.000993		
4.992	5.6E-05		
4.998	5.5E-05		
3.497	0.006273		
4.219	0.000643		
2.471	0.159846		
4.566	0.000215		
4.081	0.000993		
4.185	0.000715		
4.317	0.000472		
1.899	0.971997		
2.029	0.644899		
4.448	0.000312		
4.075	0.001012		
4.566	0.000215		
4.215	0.000651		
1.958	0.806866		
1.899	0.971997		
4.456	0.000304		
3.774	0.002617		
4.219	0.000643		
1.71	1.764825		
4.215	0.000651		
3.493	0.006353		
4.072	0.001022		
3.774	0.002617		
4.702	0.00014		
4.075	0.001012		
3.493	0.006353		
4.998	5.5E-05		
4.832	9.29E-05		0.445.460
4.702	0.00014	5.35543/	0.415462

#### Yip, Thomas W. S.; Cussen, Edmund J.; Wilson, Claire

Spontaneous formation of crystalline lithium molybdate from solid reagents at room temperature.

Dalton transactions (Cambridge, England : 2003), 2010, 39, 411-417

COD: 7024042	4.816	9.77E-05
Li2MoO4	4.577	0.000208
	3.723	0.003074
	4.626	0.000178
	3.946	0.001521
	3.316	0.011106

4.926	6.9E-05		
1.759	1.511973		
4.32	0.000467		
3.87	0.001933		
4.528	0.000242		
3.853	0.00204		
1.766	1.478938		
3.7	0.003306		
3.887	0.001832		
4.694	0.000144		
4.887	7.81E-05		
1.769	1.465003		
1.77	1.460386		
4.76	0.000117		
3.712	0.003183		
3.869	0.001939		
4.94	6.6E-05		
4.916	7.12E-05		
4.561	0.000218		
5.435	1.38E-05		
4.567	0.000214	5.948419	0.002661

**Begue, P.; Enjalbert, R.; Galy, J.; Castro, A.** Single-crystal X-ray investigations of the structures of gamma(H)Bi2 Mo O6 and its partially substituted As(3+) and Sb(3+) homologues

	Solid State Sciences, 2000, 2, 637	'-653
COD: 1525625	4.199	0.000684
Bi2MoO6	5.709	5.83E-06
	4.191	0.000702
	4.206	0.00067
	2.885	0.04328
	1.748	1.565382
	3.223	0.014895
	4.778	0.00011
	4.145	0.000812
	4.804	0.000101
	1.789	1.375394
	3.731	0.002998
	1.81	1.287198
	5.049	4.68E-05
	4.605	0.00019
	1.742	1.595305
	4.191	0.000702

4.592	0.000198		
2.841	0.049727		
4.031	0.001163		
5.333	1.91E-05		
5.495	1.15E-05	5.939593	0.003649

Seisenbaeva, G.A.; Sundberg, M.; Nygren, M.; Dubrovinsky, L.; Kessler, V.G.

Thermal decomposition of the methoxide complexes Mo O (O Me)4, Re4 O6 (O Me)12 and (Re1-x Mox) O6 (O Me)12 (0.24 < x < 0.55)

MoO2	Materials Chemistry and Physics,	2004, 87, 142-148		
COD: 1533435	4.244	0.000594		
	3.492	0.006373		
	2.069	0.568419		
	3.492	0.006373		
	4.638	0.000171		
	3.687	0.003444		
	5.674	6.51E-06		
	4.434	0.000326		
	4.638	0.000171		
	1.956	0.811975		
	1.956	0.811975		
	1.956	0.811975		
	5.674	6.51E-06		
	5.674	6.51E-06		
	4.638	0.000171		
	3.687	0.003444		
	4.683	0.000149		
	3.687	0.003444		
	3.492	0.006373		
	2.069	0.568419		
	4.638	0.000171		
	4.244	0.000594		
	4.244	0.000594		
	4.244	0.000594		
	4.244	0.000594	3.606365	0.154949

### Azad, A.K.; Eriksson, S.G.; Ivanov, S.A.; Svedlindh, P.; Mathieu, R.; Eriksen, J.; Rundlof, H.

Synthesis, structural and magnetic characterisation of the double perovskite A2 Mn Mo O6 (A = Ba, Sr)

	Journal of Alloys Compd., 2004, 3	64, 77-82
COD: 1533564	4.294	0.000507
MoO4Sr	4.294	0.000507
	3.097	0.022168
	4.931	6.79E-05

4.298	0.000501		
4.178	0.000731		
5.677	6.45E-06		
4.178	0.000731		
1.77	1.460386		
3.097	0.022168		
1.77	1.460386		
4.298	0.000501		
4.985	5.73E-05		
1.77	1.460386		
4.178	0.000731		
4.289	0.000515		
4.931	6.79E-05		
1.77	1.460386		
3.097	0.022168		
4.289	0.000515		
3.097	0.022168		
4.294	0.000507		
4.178	0.000731		
4.985	5.73E-05		
4.294	0.000507	5.937462	0.003911

# CuMoO4 Ehrenberg H, Journal of Physical Sciences. 1997, 58

Mo-O

enberg H, Jo	ournal of Physica
3.91	0.001704
5.223	2.7E-05
4.387	0.000378
4.386	0.000379
1.683	1.921795
4.035	0.001149
4.14	0.000825
1.781	1.41056
4.072	0.001022
4.536	0.000236
5.641	7.23E-06
3.732	0.002988
1.926	0.892606
3.884	0.00185
3.942	0.00154
2.105	0.507374
4.557	0.000221
2.471	0.159846

4.472	0.000289	
4.708	0.000137	
3.978	0.001375	
4.205	0.000672	
4.938	6.65E-05	4.907047

# Mo4O11 Hoong-Kun Fun, Acta Crystallographica sec. c. 1999, 55

Mo-O

•		<b>U</b>
	2.46E-05	5.253
	0.000981	4.085
	0.000544	4.272
	1.07E-05	5.517
	0.001279	4.001
	0.000936	4.1
	0.000499	4.299
	1.92E-05	5.331
	9.97E-06	5.539
	0.000475	4.315
	1.349596	1.795
	0.001012	4.075
	0.001641	3.922
	0.001178	4.027
	1.455785	1.771
	0.617026	2.043
	0.000523	4.284
	0.000152	4.675
	0.000769	4.162
	0.000565	4.26
	0.618976	2.042
	0.00075	4.17
	0.000355	4.407
	9.88E-06	5.542
	0.001003	4.078
	0.573826	2.066
	0.000592	4.245
	0.00027	4.494
	0.000485	4.308
4.629736	0.000444	4.336

Mo-O

4.382	0.000384	
4.339	0.00044	
4.491	0.000272	
4.572	0.000211	
4.384	0.000382	
4.301	0.000496	
3.428	0.0078	
2.057	0.590358	
4.438	0.000322	
3.35	0.009976	
2.041	0.620933	
5.373	1.68E-05	
3.457	0.007117	
4.38	0.000387	
3.665	0.003692	
2.068	0.570216	
2.087	0.53703	
3.744	0.002877	
2.144	0.448618	
4.755	0.000118	
4.527	0.000243	2.80189

## Livage, Carine; Hynaux, Amélie; Marrot, Jérôme; Nogues, Marc; Férey, Gérard

Solution process for the synthesis of the "high-pressure" phase CoMoO4 and X-ray single crystal resolution

COD: 7205001	Journal of Materials Chemistry, 20	002, 12, 1423
CoMoO4	5.309	2.06E-05
	4.252	0.000579
	5.558	9.39E-06
	4.252	0.000579
	3.251	0.013635
	4.222	0.000637
	4.621	0.000181
	5.5	1.13E-05
	3.705	0.003254
	4.222	0.000637
	3.251	0.013635
	1.775	1.437524
	1.775	1.437524
	3.555	0.005224
	1.895	0.984345
	5.309	2.06E-05
	3.996	0.001299

0.003254		
0.000936		
0.001299		
0.000283		
0.984345		
0.005224		
0.434681		
0.434681		
0.002264		
0.000936		
4.86E-05		
0.002264		
0.000153	5.76948	0.05314
	0.003254 0.000936 0.001299 0.000283 0.984345 0.005224 0.434681 0.434681 0.002264 0.000936 4.86E-05 0.002264 0.000153	0.003254 0.000936 0.001299 0.000283 0.984345 0.005224 0.434681 0.434681 0.002264 0.000936 4.86E-05 0.002264 0.000264 0.000153 5.76948

#### Christiansen, A.F.; Fjellvag, H.; Kjekshus, A.; Klewe, B.

Synthesis and characterization of molybdenum(VI) oxide sulfates and crystal structures of two polymorphs of Mo O2 (S O4)

COD: 7037802

MoO6S

Journal of the Chemical Society. Dalto	on Transactions, 2001, 20	001, 806-815	
4.632	0.000175		
4.293	0.000509		
3.989	0.001328		
3.798	0.002426		
4.324	0.000461		
4.655	0.000162		
4.947	6.46E-05		
2.212	0.361975		
4.202	0.000678		
4.126	0.000862		
1.679	1.946208		
4.065	0.001045		
4.678	0.000151		
4.125	0.000865		
2.24	0.331362		
2.019	0.665575		
1.675	1.970931		
4.565	0.000216		
4.732	0.000127		
4.361	0.000411		
4.678	0.000151		
3.682	0.003499		
4.252	0.000579		
4.949	6.42E-05	5.289823	0.504351

Fortes, A. Dominic

0		and a state of the second	M-O 4	1 NI 0	WO 4				1:
- U.T	vstat structures of s	spinei-type (Na~/	$\sim 1000 \sim 4 \sim$	and Na~2	~ WU~4~	revisited us	ang neutron	nowaer	апптаснов
~	jotal balactares or s	spiner cyperia a	11100 1			retroited at	ing near on	ponaer	annaetron

CO	D:	224	0655

MoNa2O4

3.747	0.00285		
3.747	0.00285		
5.098	4.01E-05		
5.098	4.01E-05		
3.747	0.00285		
5.098	4.01E-05		
1.772	1.451198		
3.747	0.00285		
3.747	0.00285		
1.772	1.451198		
3.747	0.00285		
3.747	0.00285		
3.747	0.00285		
1.772	1.451198		
1.772	1.451198		
3.747	0.00285		
5.098	4.01E-05		
3.747	0.00285		
3.747	0.00285		
3.747	0.00285	5.839154	0.025872

### Nogueira, I. C.; Cavalcante, L. S.; Pereira, P. F. S.; de Jesus, M. M.

 $Rietveld\ refinement,\ morphology\ and\ optical\ properties\ of\ (Ba\sim1\{-\sim<i>x</i>\}Sr<i>x\sim</i>)MoO\sim4\sim crystals$ 

COD: 2300459

Journal of Applied Crystallography, 20	13, 46, 1434-1446		
4.483	0.000279		
4.295	0.000506		
4.483	0.000279		
3.361	0.009636		
3.361	0.009636		
1.721	1.704612		
1.721	1.704612		
4.462	0.000298		
1.721	1.704612		
1.721	1.704612		
3.361	0.009636		
3.361	0.009636		
4.295	0.000506		
4.463	0.000298		
4.483	0.000279		
4.483	0.000279	6.859716	0.739112

#### Mtioui-Sghaier, Olfa; Mendoza-Meroño, Rafael; Ktari, Lilia;

Redetermination of the crystal structure of  $\beta$ -zinc molybdate from single-crystal X-ray diffraction data

		acture or p zine moryeu	te nom single erjou
COD: 2240887	Acta Crystallographica Section E,	2015, 71, i6-i7	
MoO4Zn	4.282	0.000527	
	4.003	0.001271	
	4.219	0.000643	
	3.256	0.013422	
	4.157	0.000782	
	1.769	1.465003	
	4.282	0.000527	
	4.461	0.000299	
	5.063	4.48E-05	
	3.553	0.005257	
	1.894	0.987456	
	3.256	0.013422	
	4.219	0.000643	
	2.171	0.411975	
	4.461	0.000299	
	1.769	1.465003	
	3.853	0.00204	
	1.894	0.987456	
	3.553	0.005257	
	4.864	8.39E-05	
	3.746	0.002859	
	2.171	0.411975	
	3.746	0.002859	
	3.853	0.00204	
	4.695	0.000143	
	5.031	4.96E-05	
	4.003	0.001271	
	4.157	0.000782	5.783386

Nogueira, I. C.; Cavalcante, L. S.; Pereira, P. F. S.; de Jesus, M. M.; Rivas Mercury,

0.046922

	Rietveld refinement, morphology a	nd optical properties of (Ba	1~1{-~ <i>x</i> }Sr <i>~x~</i> )MoO~4~ crystals
COD: 2300460	Journal of Applied Crystallography, 2013, 46, 1434-1446		
	4.923	6.97E-05	
MoO4Sr	5.034	4.91E-05	
	3.112	0.021143	
	4.32	0.000467	
	4.279	0.000532	
	1.735	1.630939	
	4.201	0.00068	
	3.112	0.021143	

1.735	1.630939		
4.279	0.000532		
4.279	0.000532		
1.735	1.630939		
1.735	1.630939		
4.32	0.000467		
5.034	4.91E-05		
4.279	0.000532		
3.112	0.021143		
4.201	0.00068		
5.034	4.91E-05	6.591822	0.350254

#### Gemmi, Mauro; La Placa, Maria G. I.; Galanis, Athanassios S.;

	Fast electron diffraction tomography			
COD: 2300504	Journal of Applied Crystallography, 2	2015, 48		
MgMoO4	4.707	0.000138		
	3.528	0.005689		
	4.221	0.000639		
	4.874	8.13E-05		
	1.715	1.737196		
	3.788	0.002504		
	3.528	0.005689		
	4.362	0.000409		
	4.633	0.000174		
	4.874	8.13E-05		
	3.941	0.001545		
	4.211	0.000659		
	1.715	1.737196		
	1.835	1.189546		
	4.362	0.000409		
	1.855	1.116786		
	4.211	0.000659		
	4.221	0.000639		
	4.463	0.000298		
	4.297	0.000502		
	4.707	0.000138		
	3.389	0.008821		
	3.941	0.001545		
	4.463	0.000298	5.81164	0.035479

Bernuy-Lopez, Carlos; Allix, Mathieu; Bridges, Craig A.; Claridge, John B.; Rosseinsky, Matthew J.

Sr2MgMoO6-δ: Structure, Phase Stability, and Cation Site Order Control of Reduction

Chemistry of Materials, 2007, 19, 1035

COD: 4001303

Mo(	D4Sr
-----	------

4.296	0.000504		
4.182	0.000722		
4.936	6.69E-05		
4.296	0.000504		
3.099	0.022029		
4.293	0.000509		
4.936	6.69E-05		
4.293	0.000509		
1.772	1.451198		
3.099	0.022029		
2.954	0.034811		
1.772	1.451198		
4.99	5.64E-05		
4.293	0.000509		
1.772	1.451198		
4.182	0.000722		
1.772	1.451198		
4.182	0.000722		
3.099	0.022029	5.91058	0.007996

Barinova, A.V.; Rastsvetaeva, R.K.; Nekrasov, Yu.V.; Pushcharovskii, D.Yu.

	Crystal structure of Li2 Mo O4			
COD: 1525609	Doklady Akad. Nauk, 2001, 376, 343	-346		
Li2MoO4	3.904	0.001737		
	4.526	0.000244		
	3.872	0.001921		
	4.791	0.000106		
	4.026	0.001182		
	1.734	1.636094		
	4.546	0.000229		
	3.437	0.007581		
	1.754	1.53602		
	1.827	1.21996		
	4.616	0.000184		
	4.25	0.000583		
	1.712	1.753721		
	4.609	0.000188		
	3.594	0.004619	6.164367	0.027016

Seisenbaeva, G.A.; Sundberg, M.; Nygren, M.; Dubrovinsky, L.; Kessler, V.G.

COD: 1533435

Thermal decomposition of the methoxide complexes Mo O (O Me)4, Re4 O6 (O Me)12 and (Re1-x Mox)

O6 (O Me)12 (0.24 < x < 0.55)

M	oO2

Materials Chemistry and Physics, 2004, 87, 142-148

y and Physics, 200	4, 87, 142-148
1.956	0.811975
1.956	0.811975
1.956	0.811975
1.956	0.811975
2.069	0.568419
2.069	0.568419
3.492	0.006373
3.492	0.006373
3.492	0.006373
3.492	0.006373
3.687	0.003444
4.244	0.000594
4.244	0.000594
4.244	0.000594
4.244	0.000594
4.244	0.000594
4.434	0.000326
4.434	0.000326
4.434	0.000326
4.434	0.000326
4.638	0.000171
4.638	0.000171
4.638	0.000171
4.638	0.000171
4.786	0.000107

4.418742 0.175345

## MoO4Zn

Mtioui 2015

1.769	1.465003
1.894	0.987456
1.894	0.987456
2.171	0.411975
2.171	0.411975
3.256	0.013422
3.256	0.013422
3.553	0.005257
3.553	0.005257
3.746	0.002859
3.746	0.002859

3.853	0.00204	
4.003	0.001271	
4.003	0.001271	
4.157	0.000782	
4.157	0.000782	
4.219	0.000643	
4.282	0.000527	
4.282	0.000527	
4.432	0.000328	
4.461	0.000299	
4.624	0.000179	
4.624	0.000179	
4.695	0.000143	4.31591
4.695	0.000143	
3.853	0.00204	