

## 52-1804

(Sr <sub>0.45</sub> K <sub>0.45</sub> )(Ca <sub>0.05</sub> Na <sub>0.05</sub> )Cu <sub>2</sub> O <sub>2.55</sub>				dÅ	Int	hkl	dÅ	Int	hkl
Potassium Sodium Calcium Strontium Copper Oxide				6.6142	5	020	1.7365	2	550
				4.3190	3	220	1.7078	8	611
				3.5753	7	111	1.6949	2	171
				3.3170	21	040	1.6628	10	080
Rad. CuKα λ 1.5418 Filter Ni d-sp Diff.				<b>2.8683</b>	100	240	1.6240	10	242
Cut off Int. Diffractometer $I/I_{cor}$				<b>2.8487</b>	71	400	1.5848	5	551
Ref. Chavira, E., Inst. de Investigaciones en Materiales, UNAM, Mexico City, Mexico, <i>Private Communication</i> , (2001)				2.7417	8	301	1.5791	7	470
Sys. Orthorhombic S.G.				2.6770	52	050	1.5612	6	371
a 11.4198	b 13.3850	c 3.9338	A 0.8532 C 0.2939	2.6208	11	420	1.5032	10	711
α	β	γ	Z mp	2.5983	2	150	1.4725	2	190
Ref. Ibid.				2.5174	58	340	1.4577	5	442
D <sub>x</sub> D <sub>m</sub> SS/FOM F <sub>30</sub> =2(.112,116)				<b>2.3163</b>	67	401	1.4449	3	480
Color Dark black				2.2741	2	500	1.4285	5	800
Prepared by a stoichiometric mixture of SrCO <sub>3</sub> (Strem, 99%), CaCO <sub>3</sub> (Cerac, 99.95%), K <sub>2</sub> CO <sub>3</sub> (Cerac, 99.999% in glove bag with argon flow), NaCO <sub>3</sub> (Cerac, 99.9%) and CuO (Aldrich, 99.99%) in Au foils, air at ambient pressure and slowly cooled. Prior to weighing SrCO <sub>3</sub> , CaCO <sub>3</sub> and Na <sub>2</sub> CO <sub>3</sub> were dehydrated by heating for 20 minutes at 100 C. Decomposition of oxysalts at 651 C for 20 hours and final reaction at 780 C for 20 hours with intermediate grinding. Silicon used as external standard. Additional powder pattern reference: Chavira, E. et al., <i>Physica B</i> , <b>284</b> 1394 (2000).				2.1855	4	350	1.4156	13	532
				2.1634	30	440	1.4081	7	
				2.0647	1	260	1.3740	13	741
				1.9669	11	002	1.3713	10	602
				1.9545	4	511	1.3417	3	622
				1.9033	10	600	1.3130	3	840
				1.8860	5	022	1.3026	7	391
				1.8622	24	202	1.2996	4	552
				1.8300	12	620	1.2607	4	680
				1.8046	12	531	1.2525	3	033
				1.7925	2	222			
				1.7510	1	460			