

$\text{Sr}_{0.5}\text{K}_{0.5}\text{CuO}_{1.75}$	dÅ	Int	hkl	dÅ	Int	hkl
Potassium Copper Strontium Oxide	6.6571	9	020	1.6727	25	080
	4.3344	10	220	1.6286	20	242
	3.5826	15	111	1.5922	17	551,470
	3.3374	25	040	1.5688	19	371
	<b>2.8837</b>	100	240	1.5030	16	711
<b>Rad.</b> CuK $\alpha$ $\lambda$ 1.5418 <b>Filter</b> Ni <b>d-sp</b> Diff.	<b>2.8566</b>	60	131,400	1.4774	15	190
<b>Cut off</b> <b>Int.</b> Diffractometer <b>I/I<sub>int.</sub></b>	<b>2.6831</b>	47	311,050	1.4615	17	442
<b>Ref.</b> Chavira, E., Inst. de Investigaciones en Materiales, UNAM, Mexico City, Mexico, <i>Private Communication</i> , (2001)	2.6277	19	[231]	1.4507	17	660
<b>Sys.</b> Orthorhombic <b>S.G.</b>	2.5151	29	340	1.4464	16	480,651
<b>a</b> 11.4432 <b>b</b> 13.4155 <b>c</b> 3.9418 <b>A</b> 0.8530 <b>C</b> 0.2938	2.4130	13	[430]	1.4319	18	262,731
<b><math>\alpha</math></b> <b><math>\beta</math></b> <b><math>\gamma</math></b> <b>Z</b> <b>mp</b>	2.3340	16	[241]	1.4152	15	532
<b>Ref.</b> Ibid.	2.3161	31	401	1.4007	15	820
<b>D<sub>x</sub></b> <b>D<sub>m</sub></b> <b>SS/FOM</b> F <sub>30</sub> =4(.052,140)	2.2291	13	060	1.3729	19	[072]
<b>Color</b> Dark black	2.1728	40	151,440	1.3444	14	[801]
Prepared by solid state reaction in stoichiometric proportions of SrCO <sub>3</sub> (Strem, 99%), K <sub>2</sub> CO <sub>3</sub> (Cerac, 99.999% in an argon flowing glove bag) and CuO (Aldrich, 99.99%). Prior to weighing, SrCO <sub>3</sub> was dehydrated by heating for 20 minutes at 100 C. Using Au foil, SrCO <sub>3</sub> was decomposed for 16 hours at 630 C; then reaction completed at 750 C for 19 hours, followed by slow cooling in air and at ambient pressure. Silicon used as external standard. Additional powder pattern reference: Chavira, E. et al., <i>Solid State Commun.</i> , 112 471 (1999).	2.0755	13	260			
	1.9709	19	002			
	1.9561	16	511,450			
	1.9072	21	600			
	1.8908	16	022,170			
	1.8624	19	202			
	1.8344	21	620			
	1.8094	24	531			
	1.7593	14	460			
	1.7367	14	[312]			
	1.7026	15	171,611			