

## Supporting Information

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x	0.01	0.03	0.07	0.10
<b>Crystal system</b>	Orthorhombic			
<b>Space group</b>	Pbam			
<b>Cell parameters</b>				
<b>a</b>	14.51929	14.52059	14.52347	14.52344
<b>b</b>	10.22728	10.22709	10.22868	10.22807
<b>c</b>	5.94895	5.94883	5.94933	5.94871
<b>Cell volume (Å<sup>3</sup>)</b>	882.754	883.421	883.808	883.662
<b><math>\alpha=\beta=\gamma</math> (°)</b>	90	90	90	90
<b><math>\chi^2</math></b>	4.032	5.125	4.539	4.735
<b>Rp</b>	8.36	9.56	9.03	9.54
<b>Rwp</b>	12.75	14.36	13.55	14.06

Table S1. Refined crystallographic data of Mg<sub>14</sub>Ge<sub>5</sub>O<sub>24</sub>: xCr (MGO: xCr).

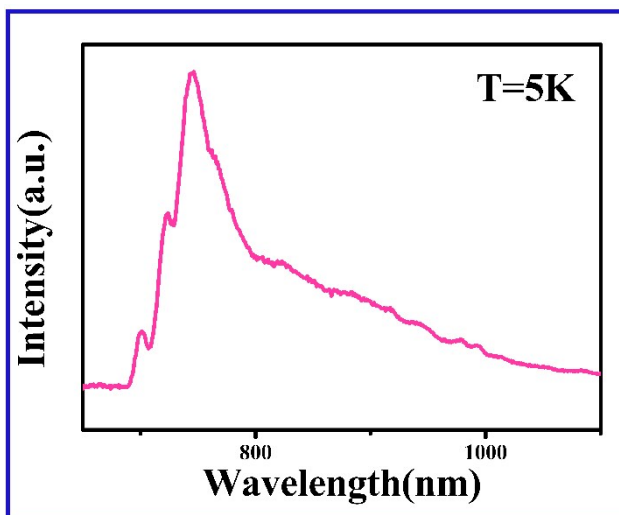


Fig. S1. Low temperature spectrum of MGO: 0.10Cr at T=5K ( $\lambda_{ex}$ =420 nm)