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Effect of disordered structure and crystal defects on heat transfer behavior in Er:Yb: YCa₄O(BO₃)₃ crystal

Degao Zhong, Bing Teng, Weijin Kong, Chen Hu, Congting Sun, Dongfeng Xue, Jianhong Li, Jie Tang, Xiaobing Li, Dongjuan Wang, Wanxia Huang

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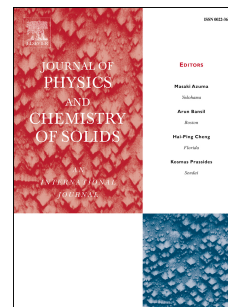
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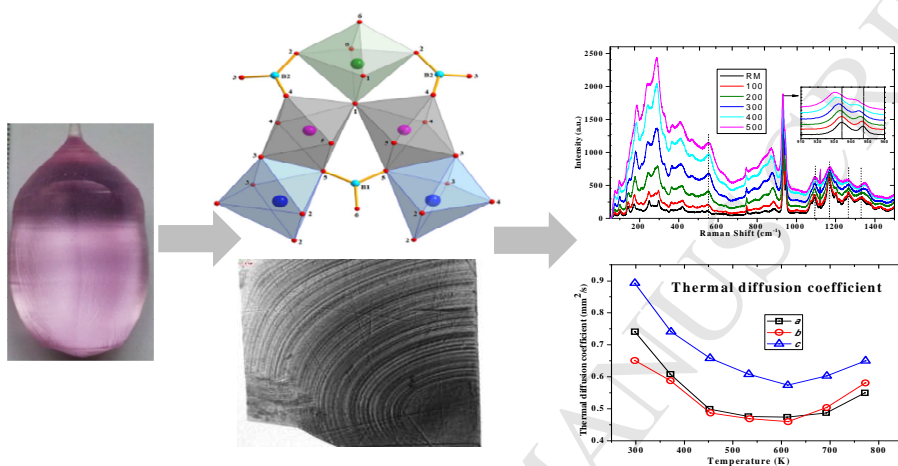
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Graphical Abstract

From a new perspective, we investigated the anomalous glasslike behavior of heat transfer in Er:Yb:YCOB crystal by means of temperature dependence Raman scattering spectra and the synchrotron radiation X-ray topography. The inconsistent and complicated temperature dependences of the linewidths of different Raman peaks, indicates the complicated influences of the disordered structure and crystal defects on the phonon scattering processes



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