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标题: BaMg1/3Nb2/3O3-Mg4Nb2O9 composite microwave ceramics with high Q-factor and low sintering temperature
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摘要: Revised thermodynamic equilibrium in the BaO-MgO-Nb2O5 pseudo-ternary system has lead to development of a novel composite dielectric material with dielectric constant, epsilon' = 25.5, efficacy factor, Q x f = 160 THz, and temperature coefficient of the resonant frequency, tau(f) = +0.5 ppm/K. The material shows one of the highest Q-factors among the Ta-free microwave dielectric resonators. It also does not contain volatile Zn and Co elements. Other important property of the title compound is low sintering temperature of 1320 degrees C which significantly reduces the processing cost. (C) 2012 Elsevier Ltd. All rights reserved.
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