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Growth rate and specific surface free energy of synthesized quartz single crystal

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The specific surface free energy of quartz single crystal was determined by contact angle of water and formamide droplets on the crystal surface, and compared with the morphology of the crystal. The growth rate of the quartz crystal can be regarded as a function of the experimentally obtained specific surface free energy. The distriburion of the specific surface free energy indicates the existance of negative step free energy.

Keywords: crystal growth, crystal surface, free energy