

LETTER TO THE EDITOR

Calculation of reflection and transmission coefficients for
qP waves incident on a planar interface between isotropic
and triclinic media

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Abstract

In the paper by Chattopadhyay and Rajneesh (2006, "Reflection and refraction of waves at the interface of an isotropic medium over a highly anisotropic medium", Acta Geophysica, vol. 54, no. 3, pp. 239-249), the authors proposed a process to calculate R/T (reflection and transmission) coefficients at the interface between isotropic and triclinic half-spaces, with incident qP waves in triclinic media. Unfortunately, besides several misprints, the authors made a fatal assumption that there is no transmitted SH wave generated in isotropic media, which led the successive analytical derivations and numerical calculations thoroughly wrong. In this paper, the errors are analyzed at length and corrections are given. Then an alternative approach to solve the problem is proposed and numerical results are shown and discussed.

Key words: anisotropic, interface, reflection and transmission coefficients, triclinic media.