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Regularity criterion for the 3D Hall-magnetohydrodynamic equations involving the vorticity. (English) [Zbl 1348.35206](#)

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The author study the regularity of solutions to the three-dimensional incompressible Hall-magnetohydrodynamic equations. And the regularity criterion is obtained only in terms of the vorticity fields, which is similar with that of the magneto-hydrodynamic equations.

Reviewer: [Cheng He \(Beijing\)](#)

MSC:

[35Q35](#) PDEs in connection with fluid mechanics
[35B65](#) Smoothness and regularity of solutions to PDEs
[35Q85](#) PDEs in connection with astronomy and astrophysics
[76W05](#) Magnetohydrodynamics and electrohydrodynamics

Cited in **1** Review
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Keywords:

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