

# Review of: "Einstein-AdS gravity coupled to nonlinear electrodynamics, magnetic black holes, thermodynamics in an extended phase space and Joule—Thomson expansion"

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Potential competing interests: No potential competing interests to declare.

Review report: "Einstein-AdS gravity coupled to nonlinear electrodynamics, magnetic black holes, thermodynamics in an extended phase space and Joule—Thomson expansion"

This draft claims the thermodynamics and phase transitions of magnetically charged black holes in Anti-de Sitter spacetime and the black hole stability are analyzed by calculating Gibbs free energy and heat capacity. The author considered the Joule—Thomson expansion to show the cooling and heating phase.

Firstly the topic is very interesting, it need some minor review along with the text and also the equations and the text should be carefully punctuated.

Besides this report, I should mention some points to the author:

- In figure 1, sub plot 1 and sub plot 2, author claims that the black hole could have one or two horizon while the graphs are not claiming.
- The Joule—Thomson coefficient are not derived and the electrodynamics and magnetic effects can be investigated to find the cooling or heating process.
- How entropy varies the thermodynamic quantities?
- The conclusion should be written more significantly.