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.

This paper investigates magnetically charged black hole solution in Einstein-AdS gravity coupled to non-linear electrodynamics. The author also discusses black hole's thermodynamic properties such as, phase transition, the first law of black hole mechanics and Smarr formula.

The author correctly obtains magnetically charged black hole for which it reduces to the known solution in a proper limit. The thermodynamics part is also well-organized and systematically explored. In my opinion, this article has potential be published in a peer-reviewed journal.

However, there are a few thing that I think this manuscript could be improved.

- In the introduction, it would be better if the author gives more details about non-linear electrodynamics and why we should pay attention to this.

- When solving for the black hole solution, the author could emphasize that the eclectic field E is set to zero.

- The black hole solution the author obtained can be considered as a regular black hole. The author could elaborate more on this. It is not clear to me whether the thermodynamics part is done for the black hole or the regular black hole.