

The Cryosphere Discuss., community comment CC1
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express melt rate in mW/m²?

William Colgan

Community comment on "Indication of high basal melting at the EastGRIP drill site on the Northeast Greenland Ice Stream" by Ole Zeising and Angelika Humbert, The Cryosphere Discuss., <https://doi.org/10.5194/tc-2021-37-CC1>, 2021

Is it possible for you to express your 0.16-0.22 m/yr basal melt rate as an equivalent mW/m² basal heat flux? This would allow the reader to make a quick comparison with the previous estimate of 970 mW/m² that is cited.

For another comparison, I believe NGRIP has a reported basal melt of 1 cm/yr and a published range of geothermal heat flow estimates of something like 130 +/- 30 mW/m². Your observed basal melt rate would be at least 16x greater than this.

I think it is fine to talk about a basal heat flow, as long as "basal heat flow" is not being used interchangeably with "geothermal heat flow".

Interesting read!