

# Ion Stopping Powers and Ranges Whenever You Need Them

- a useful tool for your Android mobile phone



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Link to this poster

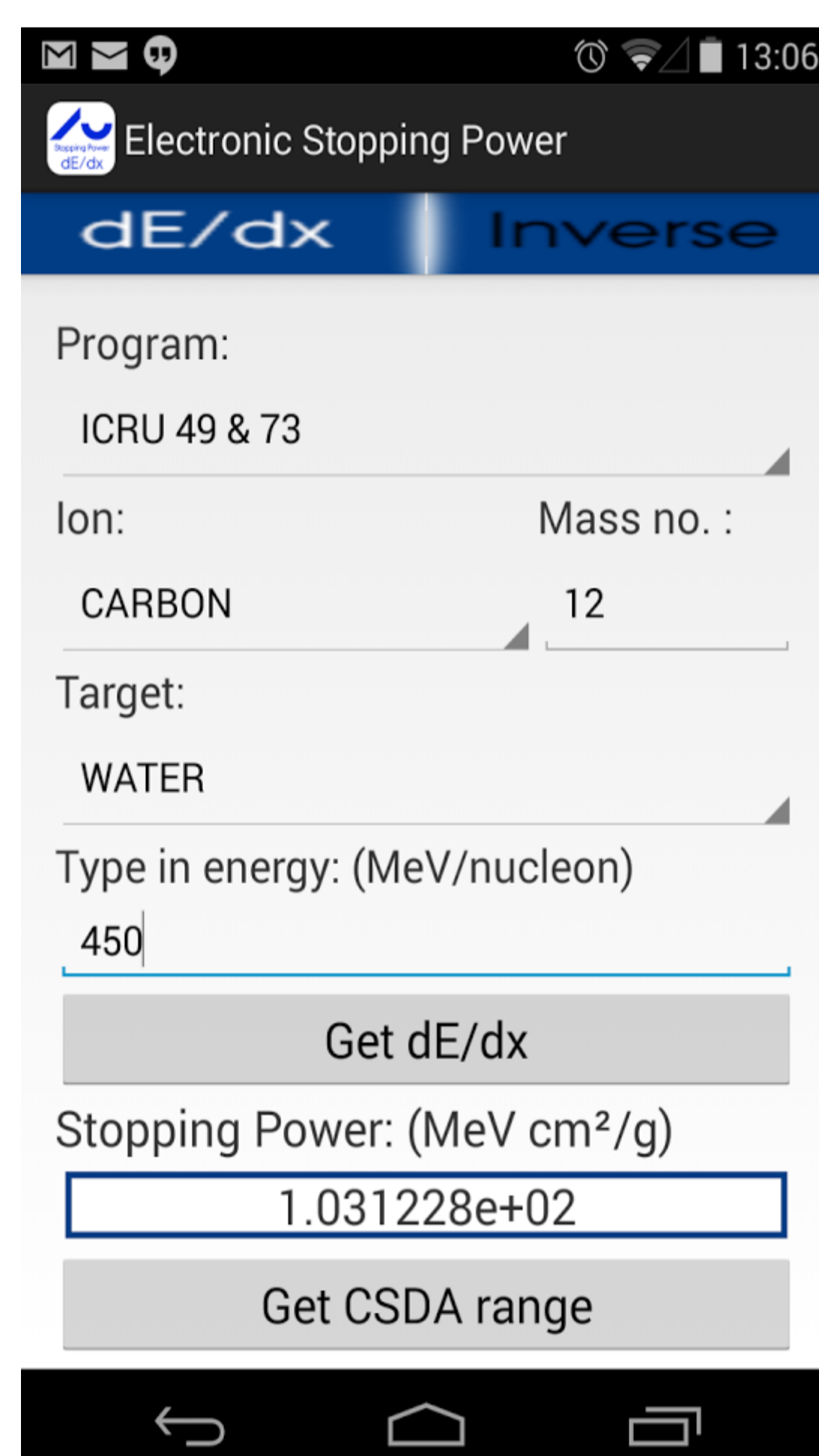
## FEATURES (v.1.0)

### Mass stopping powers from

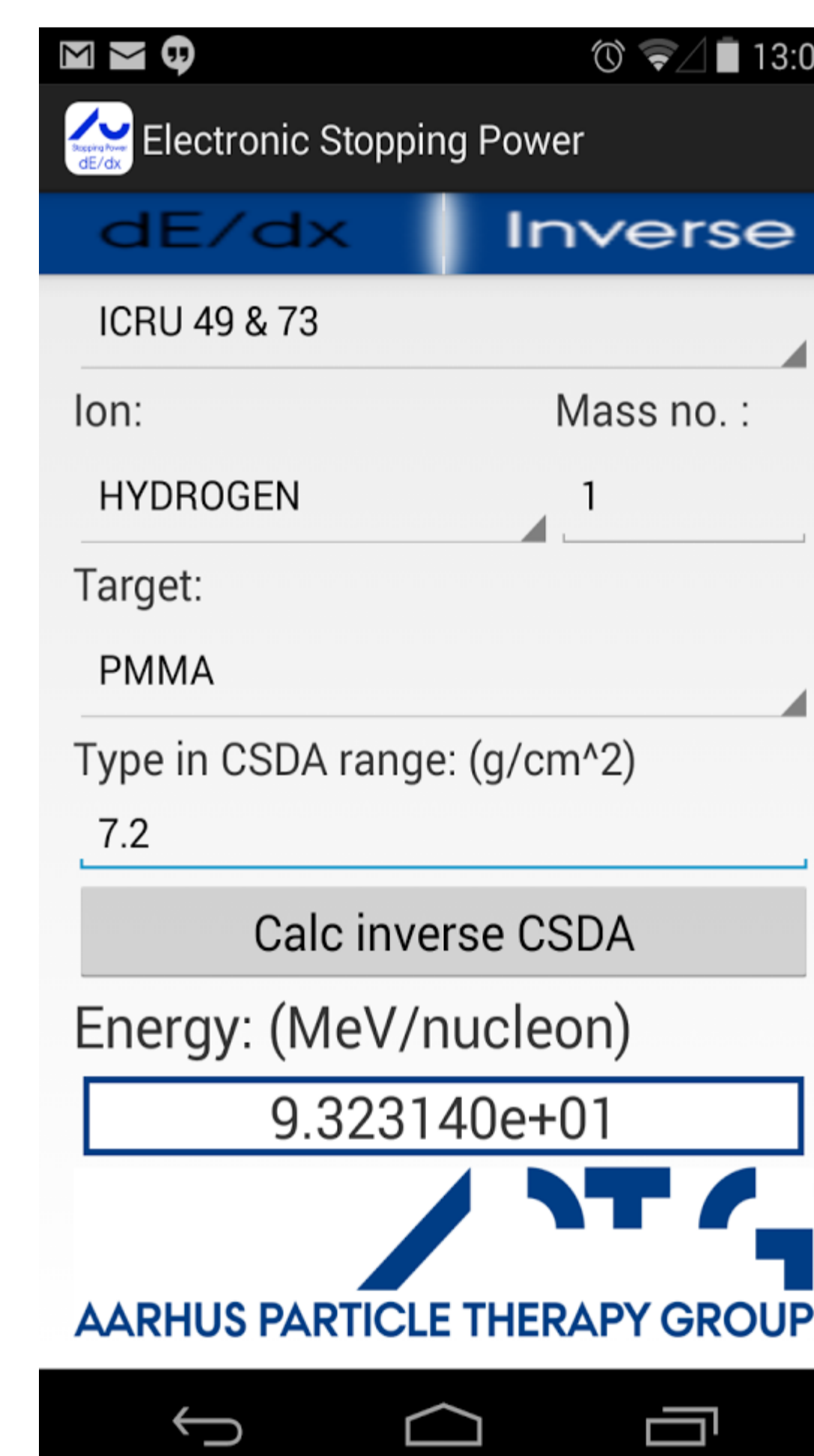
- ICRU49/73
- MSTAR
- Bethe equation with Linhards-Scharff low energy extension
- **All 278 ICRU materials** accessible where applicable
- **All ions** from protons (z=1) to copernicium (z=112) (where applicable)
- **No network needed**, all data stored locally on phone
- **Free and open source**



Download App



- Enter ion, medium and table to be used
- App returns the **mass stopping power** and the **CSDA range** of the ion
- Results are copied to clipboard when touched



Inverse mode:

- **Enter desired range**
- App returns **kinetic energy** needed in MeV/nucleon

Based on libDedx stopping power library hosted on [sourceforge.net](http://sourceforge.net)

- **precise:** libDedx reproduces the original sources better than 0.3%
- **fast:** 100 million stopping power lookups in 4.54 seconds on a desktop PC

### References

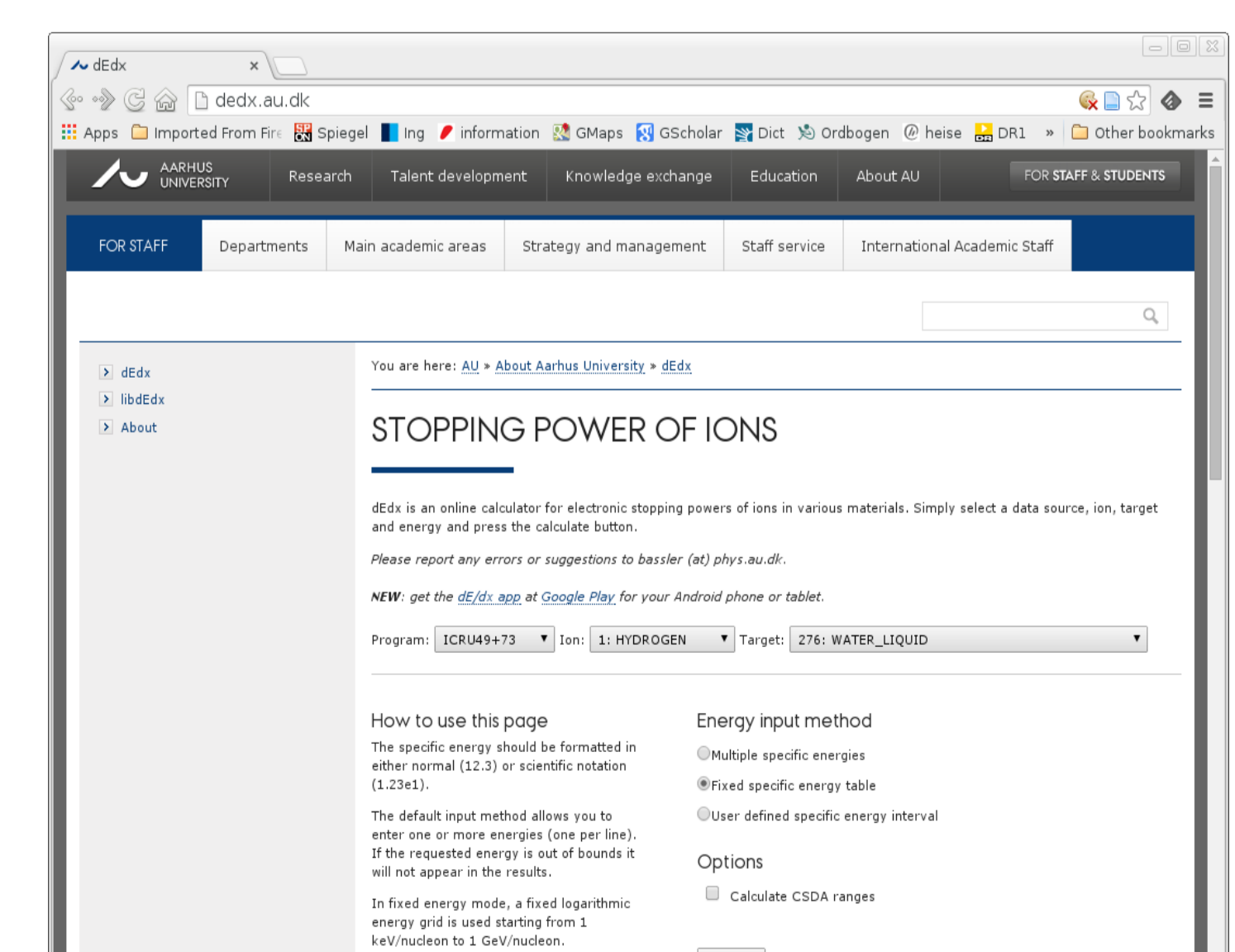
- Toftegaard, Jakob, et al. *Journal of Physics Conference Series*. Vol. 489. No. 1. 2014.



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Alternative to the app.

Web interface exists giving the same functionality as the app.



Webinterface online at <http://dedx.au.dk>