

R.Q. Wright re-evaluated prompt nubar

A follow up to ORNL/TM-2015/30

In 2015, RQ Wright published ORNL/TM-2015/30

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**Prompt-nubar Calculations for
53 Actinides**



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Added to ENDF/B-VIII.0
during a Hackathon by T.
Kawano and D. Brown

Prompt-nubar Calculations for
53 Actinides



Revised, new nubar evaluations for several MA

- **Pa-230, Pa-232**
- **U-230, U-231, U-232**
- **Pu-237**
- **Am-243, Am-244, Am-240**
(241Am withdrawn, wrong energy range;
243Am extends to 30 MeV)
- **Cm-240**
- Cf-250, Cf-252, Cf-254 redone, but recommend keeping ENDF/B-VIII.0

None had energy dependence in previous evaluation now good over $10e-5$ eV — 20 MeV

Recommendations for TKE

- Use the Unik equation for $Z= 92$ to 97 , and 100 .
- californium: $TKE = 0.1200 * ((Z * Z) / A^{(1/3)}) + 8.819$
- einsteinium: $TKE = 0.1200 * ((Z * Z) / A^{(1/3)}) + 7.801$

**Recommend adding
these data during next
Hackathon**