ADDENDUM: "HEATING IN THE ACCRETED NEUTRON STAR OCEAN: IMPLICATIONS FOR SUPERBURST IGNITION" (ApJ, 662, 1188 [2007])

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For convenience in constructing numerical models, we here append Table A1, giving the data used to generate Figure 7. We give the value of the heat deposition, Q, for a given mass chain A as a function of the electron chemical potential μ_e for $\mu_e < 20$ MeV ($\rho Y_e \approx 6 \times 10^{10}$ g cm⁻³, where Y_e is the electron abundance). Note that μ_e does not include the electron rest mass. We calculate Q according to the approximate model described in § 3.3. Table A1 lists for each mass chain A (col. [1]) the charge number Z_i of the nucleus entering each transition (col. [2]), the charge number Z_f of the nucleus after all allowed captures have occurred (col. [3]), the electron chemical potential μ_e of the transition (col. [4]), and the net heat deposited per nucleon Q by these captures into the neutron star crust (col. [5]). Note that in many cases the first capture onto nucleus ${}^{A}Z_i$ is immediately followed by a second capture, which is why there are numerous entries with $Z_i - Z_f = 2$. For a multicomponent plasma, one should multiply the heat deposition Q of a particular transition by the mass fraction for that A.

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| <i>A</i> (1) | <i>Z_i</i> (2) | Z _f (3) | (MeV) (4) | Q (keV) (5) |
|--------------|--------------------------|-----------------------|-----------|-------------------|
| | | | | |
| 23 | 11 | 10 | 4.81 | 0.0 |
| 23 | 10 | 9 | 9.41 | 7.0 |
| | | | | |
| 64 | 30 | 28 | 0.65 | 12.6 |
| 64 | 28 | 26 | 7.50 | 16.2 |
| 64 | 26 | 24 | 13.02 | 19.6 |
| 64 | 24 | 22 | 18.51 | 72.7 |
| | | | | |
| 104 | 46 | 45 | 2.43 | 2.1 |
| 104 | 45 | 44 | 4.18 | 51.2 |
| 104 | 44 | 42 | 5.24 | 29.4 |
| 104 | 42 | 40 | 8.18 | 6.3 |
| 104 | 40 | 38 | 12.05 | 6.7 |
| 104 | 38 | 36 | 15.97 | 8.4 |
| 105 | 46 | 45 | 0.59 | 0.0 |
| 105 | 45 | 43 | 4.43 | 30.0 |
| 105 | 43 | 41 | 7.45 | 27.9 |
| 105 | 41 | 40 | 8.27 | 0.0 |
| 105 | 40 | 39 | 10.60 | 0.0 |
| 105 | 39 | 38 | 11.87 | 0.2 |
| 105 | 38 | 37 | 14.45 | 0.6 |
| 105 | 37 | 36 | 15.76 | 1.4 |

TABLE A1

Note.—Table A1 is published in its entirety in the electronic edition of the *Astrophysical Journal*. A portion is shown here for guidance regarding its form and content.