

SURFACE COMPOSITION OF NEUTRON STARS THAT ARE ACCRETING MATTER*

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Abstract. Surface composition of a neutron star in the absence of accretion is pure iron (Tsuruta, 1964). We considered two cases of accretion. (a) The accretion of inter-stellar matter: Here we expect the presence of a significant amount of various elements between proton and iron, though iron is still the most dominant. (b) The accretion as the energy source of an X-ray source in a binary system. Here it is most likely that the incoming flux is sufficiently high (non-steady state) and protons accumulate on the accreting region of the surface.

Reference

Tsuruta, S.: 1964, Ph.D. Thesis, Columbia University.

* To be published.

*C. DeWitt-Morette (ed.), Gravitational Radiation and Gravitational Collapse, 186. All Rights Reserved.
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