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Buffer Energy Nuclear Fusion

Hidetsugu Ikegami[1,2,3]

[1]*2-12-50 Hibarigaoka, Takarazuka 665-0805, Japan*
[2]*Institute of Chemistry, Department of Analytical Chemistry, Uppsala University, Box 531, S-751 21 Uppsala, Sweden*
[3]*Department of Radiation Sciences, Uppsala University, Box 535, S-751 21 Uppsala, Sweden*

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Abstract:

A compact scheme of non-thermonuclear fusion is presented. Hydrogen ions are implanted directly from nonthermal discharge plasma or ion source into a surface of liquid Li metal at a buffer energy of a few tens keV where nuclear stopping occurs. The ions interact with Li atoms or mixed element atoms which are not being internally excited and tend towards the formation of united atoms at the minimum Gibbs free energy point. This leads to the enhanced rate of non-thermonuclear fusion of hydrogen ions due to cohesion in the liquid metal.

Keywords:

non-thermonuclear fusion, buffer energy, nuclear stopping, united atom, Gibbs free energy, cohesion