

Title (en)

METHOD AND APPARATUS FOR COMPRESSING A BOSE-EINSTEIN CONDENSATE OF ATOMS

Title (de)

VERFAHREN UND VORRICHTUNG ZUR KOMPRESSION EINES BOSE-EINSTEIN ATOMSKONDENSATES

Title (fr)

PROCEDE ET APPAREIL PERMETTANT DE COMPRIMER UN CONCENTRE D'ATOMES DE BOSE-EINSTEIN

Publication

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Application

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- US 8997198 P 19980619

Abstract (en)

[origin: WO9956284A2] A Bose-Einstein condensate (102) of atoms is compressed and/or rapidly de-condensed in the reaction chamber (104) by a beam (109) in order to achieve nuclear fusion. A pre-formed Bose-Einstein condensate of atoms may be introduced into the reaction chamber (104), or the constituent atoms of the Bose-Einstein condensate may be introduced into the reaction chamber (104) with formation of the Bose-Einstein condensate from the constituent atoms occurring subsequently inside the reaction chamber (104). The constituent atoms of the Bose-Einstein condensate may be bosons, Fermions or both. The beam (109) is directed at and focused on the Bose-Einstein condensate so as to maximise the total compression of the Bose-Einstein condensate. Upon de-condensing, the Bose-Einstein condensate atoms fuse, releasing substantial amounts of energy. This energy is harnessed and used to drive a turbine (120) to run a generator (122).

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