## **Accepted Manuscript**

Electron-phonon interaction in the binary superconductor lutetium carbide LuC<sub>2</sub> via first-principles calculations

S. Dilmi, S. Saib, N. Bouarissa

PII: S0921-4534(18)30058-3 DOI: 10.1016/j.physc.2018.03.010

Reference: PHYSC 1253327

To appear in: Physica C: Superconductivity and its applications

Received date: 1 February 2018
Revised date: 17 March 2018
Accepted date: 23 March 2018



Please cite this article as: S. Dilmi , S. Saib , N. Bouarissa , Electron-phonon interaction in the binary superconductor lutetium carbide  $LuC_2$  via first-principles calculations, *Physica C: Superconductivity and its applications* (2018), doi: 10.1016/j.physc.2018.03.010

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

### ACCEPTED MANUSCRIPT

## **Highlights**

- Transition metal carbides and superconducting properties.
- Structural properties and band structure of LuC<sub>2</sub>.
- Electron-phonon coupling and dynamical stability of LuC<sub>2</sub>.
- Superconducting properties of the intermetallic compound LuC<sub>2</sub>.
- Superconducting critical temperature of LuC<sub>2</sub>.
- Effect of spin-orbit coupling on superconducting properties of LuC<sub>2</sub>.



#### Download English Version:

# https://daneshyari.com/en/article/8163925

Download Persian Version:

https://daneshyari.com/article/8163925

<u>Daneshyari.com</u>