### Accepted Manuscript

Research paper

Halogen Bonding with Carbene Bases

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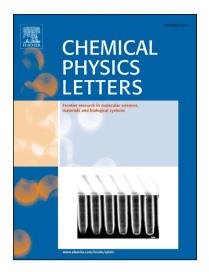
PII: S0009-2614(17)30729-7

DOI: http://dx.doi.org/10.1016/j.cplett.2017.07.051

Reference: CPLETT 34977

To appear in: Chemical Physics Letters

Received Date: 4 June 2017 Revised Date: 18 July 2017 Accepted Date: 20 July 2017



Please cite this article as: J.E. Del Bene, I. Alkorta, J. Elguero, Halogen Bonding with Carbene Bases, *Chemical Physics Letters* (2017), doi: http://dx.doi.org/10.1016/j.cplett.2017.07.051

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### **ACCEPTED MANUSCRIPT**

# Research paper

## **Halogen Bonding with Carbene Bases**

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#### Highlights:

- ▶ Five open and cyclic carbene bases are electron pair donors to four ClX acids.
- ► Complexes with CICCH and CICN are stabilized by traditional halogen bonds.
- ► Chlorine transfer occurs in carbene complexes with CINC and CIF.
- ► These complexes are stabilized by ion-pair Cl<sup>+</sup>·····NC and Cl<sup>+</sup>·····F halogen bonds.
- ► Consistent descriptions are given by bonding indexes and coupling constants.

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