



**AECENAR**

Association for Economical and Technological Cooperation  
in the Euro-Asian and North-African Region

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**IAP**  
INSTITUTE FOR  
ASTROPHYSICS

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## Infrared Sensor System for IAP-SAT (IAP-IRS)

The IAP project aims to investigate a proper low cost platform to take interstellar data in IR and radio spectrum. There are the following working packages for 2018-2020:

- Detailed space infrared sensor
- Detailed Mission Planning for bringing IAP-SAT into orbit
- Collect data from IAP-SAT



Illustration 1 : Caption: Black Widow nebula captured by Spitzer's IRAC.  
Credit: NASA/JPL-Caltech/E. Churchwell (University of Wisconsin-Madison) and the GLIMPSE Team

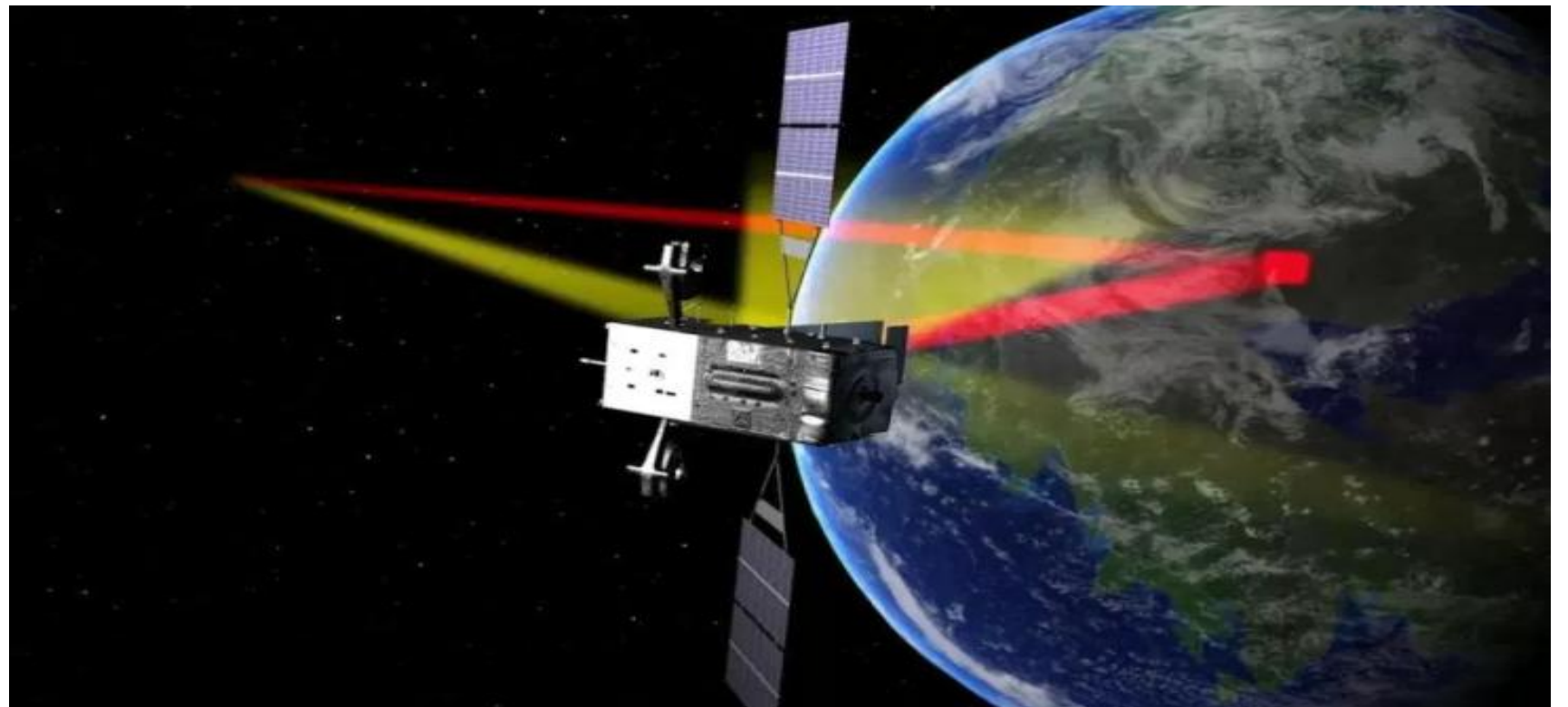


Illustration 2 : The Space Based Infrared System can spot heat causing events across the world

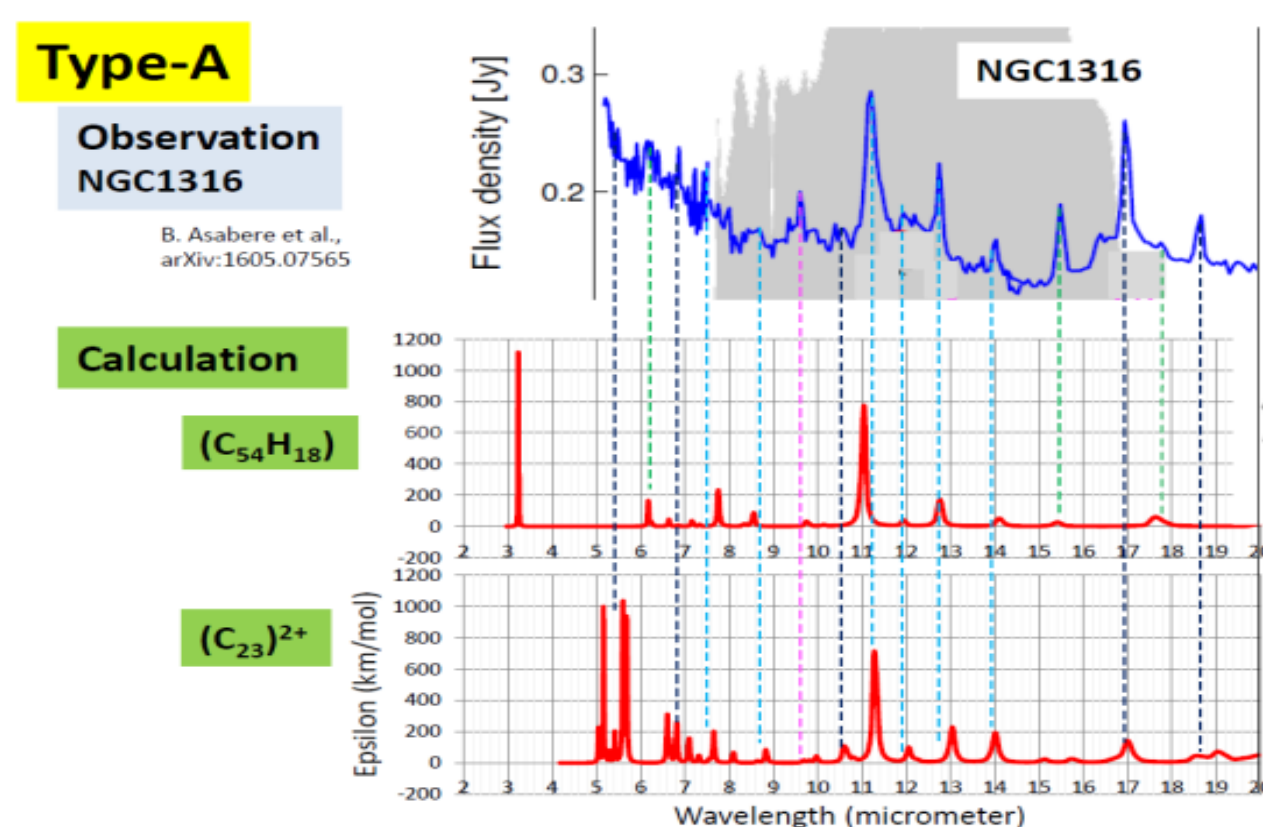


Illustration 3: Type-A spectrum. Calculated spectrum of (C<sub>54</sub>H<sub>18</sub>) and (C<sub>23</sub>)<sup>2+</sup> are compared with observed one of NGC1316. Blue dashed lines coincident with both molecules, whereas green with only (C<sub>54</sub>H<sub>18</sub>), black with (C<sub>23</sub>)<sup>2+</sup>, pink no coincidence with both molecules.

### Tasks:

- Design of a proper infrared sensor.
- Collect IR data from satellite platform in Canopus Region.

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