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## Sputtering and Detection of Large Organic Molecules from Europa

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**Highlights**

- With the planning of new missions to study a critical astrobiology target, Europa, there is renewed interest in the possibility of detecting organic molecules that might be related to bioactivity in Europa's underground ocean.
- The sputtering of ice from Europa's surface by the impacting energetic heavy ions trapped in Jupiter's magnetosphere will also carry into the gas phase any ocean organics that might have reached its surface.
- We give new estimates of the ejection into the gas-phase of trace organic molecules embedded in an ice matrix on Europa's surface and the possibility of detection during a fly by mission.

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