

## **Abundance and distribution of diamondoids in some Egyptian crude oils as a tool of origin and thermal maturity assessment**

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Thermal maturity of oil or rock is the process by which oil is extracted, migrated and accumulated in the reservoir and therefore its assessment is very important in petroleum exploration and production. Hopanes and steranes biomarkers are widely used for this purpose, however, they show invers actions at higher maturity levels and they are affected by other geological conditions (eg. source and depositional environment). Diamondoids were found to be more applicable at high maturity levels and less affected by other geological conditions. Here we show the abundance and the isomerisation ratios of diamondoids as thermal maturity indicators of different types of Egyptian crude oils. We found that F1 from Faghour basin is the highly mature oil compared to other studied oils; however, F2 from the same basin shows lower maturity level suggesting in-reservoir oil mixing.