SULFUR: REACTANT AND ELECTRON TRANSFER AGENT, BSR TO TSR NEW IDEAS BASED ON 50 YEARS REVIEW.

ZEEV AIZENSHTAT¹²³

¹ The Hebrew University of Jerusalem Israel 919041 Chemistry and Earth Sciences Institutes

The isoelectronic nature of the sulfur atom to ethylene $(CH_2=CH_2)$, its chemical capability of catenation (S-S-S)_x are conducive to its facile interactions with organic matter. The use of sulfur stable isotopes ratios to form new indices Organosulfur Compounds. Molecular and Isotopic Evolution from Biota to Oil and Gas, was reviewed in depth the capability of sulfur to lower the temperature of water splitting to both hydroxyl and thiyl radicals was suggested by us based on lowering of reaction temperatures and disproportionation of the elemental sulfur used in the presence of OM. overlapping temperature range when biotic control is replaced by chemical control. Discussion of possible mechanisms will refer to C and S cycles.