

Xu L., Reddy C.M., Farrington J.W. Fryxinger, G.S., Gaines, R.B., Johnson, C.G., Nelson, R.K., and Eglinton T.I. , *Identification of a novel alkenone in Black Sea sediments*, *Org. Geochem.*, 2001; v32, 633-645

We report the identification of a novel long-chain ketone in Holocene Black Sea sediments. Based on chem. properties, and chromatog. and mass spectrometric characteristics, this compd. has been identified as a diunsatd. C36 Et ketone. Further analyses indicated the position and configuration of the double bonds, and the novel alkenone was detd. to be hexatriaconta-(16E,21E)-dien-3-one. While this compd. is present in only trace quantities in Unit I sediments, it is the most abundant alkenone in portions of Unit II. Its presence thus apparently pre-dates the invasion of *Emiliana huxleyi* in the Black Sea. The down-core profiles and isotopic compns. suggest that the precursor for the C36:2 alkenone may be distinct from that of the C37-39 alkenones, however the biol. origin of this novel compd. is presently unknown.