



Fig. 5-2. Genetic characterization of natural gases by compositional and isotopic variation: (a) formation of natural gas and petroleum in relation to maturity of organic matter; (b) relative concentration of C2+ hydrocarbons in relation to  $^{13}C$  in  $CH_4$ , with arrows indicating compositional changes due to shallow migration (Ms) and deep migration (Md) (reproduced with permission from Schoell, 1983a, 1983b).