



FIGURE 3.22. (A) The arrow points to a plagioclase feldspar grain heavily altered by weathering shown in plane-polarized light. (B) The same field of view as in (A) under crossed polarizers, showing twinning of plagioclase feldspar. (C) A large microcline potassium feldspar grain under crossed polarizers, showing characteristic "tartan plaid" twinning. (D) Shale chips/mud intraclasts (arrows). (E) Volcanic rock fragments. (F) Tourmaline crystal with detrital core and abraded overgrowth. Images (A)–(E) from Adams *et al.* (1984), and (F) from Pettijohn *et al.* (1972). By permission of Springer Science and Business Media.