MAGNESIAN ANORTHOSITES AND OTHER CLASTS FROM COMPLEX BRECCIA 14321.

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Magnesian anorthosites are the newest in a series of diverse clast types found in Apollo 14 breccias. They are part of a suite of 37 clast and matrix samples from 14321 analyzed by INAA as part of a consortium headed by Larry Taylor and John Shervais. Clasts are grouped, according to macroscopic description: 1) white clasts, 2) mare basalts, 3) dark KREEPy breccias, 4) matrix samples.

White Clasts. The white clasts are extremely variable in composition. Many of the 12 clasts are brecciated but most are monomict, with low siderophile contents and compositions too extreme to be mixtures. Considered in order of decreasing mafics breccias. They are part of a suite of 37 clast and matrix samples from 14321 analyzed by INAA as part of a consortium headed by Larry Taylor and John Shervais. Clasts are grouped, according to macroscopic description: 1) white clasts, 2) mare basalts, 3) dark KREEPy breccias, 4) matrix samples.

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Matrix Samples. Five samples of matrix material were analyzed, three light and two dark. All are high in FeO (14-16%), with moderate CaO (10.8-11.4%) and low to moderate REE (La 16.8-47). Th matrix samples are dominantly mare basalt materials, a fact noted by Duncan [5]. Two LM samples have mare basalt compositions, the others have higher CaO and REE, evidence for addition of an anorthositic component which may contribute to the higher REE contents. Alternatively a KREEP component may also be present.

References