This very fresh (W0), black, relatively fine-grained, porous stone (12.7 grams) probably is a recent fall judging from its shiny fusion crust (composed of dispersed magnetite and olivine grains + glass). The interior consists of sparse mineral grains, carbon-rich objects, dust-armored chondrules and rare CAI in a heterogeneous, very fine grained, porous matrix composed of bladed Fe-Mg-S-rich phyllosilicates (probably tochinilite-cronstedtite) with some primary calcite pentlandite and diamond. Normally-zoned olivine grains (up to 2 mm; range Fa1.5-66) are armored by polycrystalline dust, and contain inclusions of Ni-rich troilite, chromite, millerite, kamacite and taenite. Some carbon-rich objects (up to 50 μm across) are pure graphite, but many are a chlorine-rich organic phase containing ~17 wt.% Cl and ~32 wt.% C, but no N and little O (Fig. 2). One small spherical CAI is composed of Mg-Al spinel with inclusions of perovskite.

**Oxygen Isotopes:** Analyses of acid-washed whole samples by laser fluorination gave, respectively, $\delta^{18}$O = 0.494, 1.166; $\delta^{17}$O = 6.224, 7.049; $\Delta^{17}$O = -2.780, -2.542 per mil. These results plot within the field of CM chondrites [1].

**Affinities:** NWA 3340 appears to be an anomalous CM2 chondrite that contains unusually abundant halogenated carbonaceous compounds. Extractable chlorinated benzoic acids were reported [2] in other CM2 chondrites (Murchison, Orgueil, Murray and Cold Bokkeveld), but we doubt that the Cl-rich phases in NWA 3340 are such compounds. Nevertheless, it appears that various halogen-rich organic compounds (perhaps hydrocarbons and/or oxyacids) must have been present in the early solar nebula prior to accretion of the CM parent body or bodies.