TOF MS studies of the BN and carbon laser ablated plasma (YAG-laser, $\lambda_{exc} = 1064\ \text{nm}$). VLADIMIR MAKAROV, DACHUN HUANG, University of Puerto Rico, Dept of Chem, ARTUTO HIDALGO, GERARDO MORELL, University of Puerto Rico, Dept of Phys, BRAD WEINER, University of Puerto Rico, Dept of Chem — In the present study, TOF MS spectra of the ablated ions from the BN-ceramic, amorfus carbon, graphite and fullerene-60 surfaces were recorded for different distances between the target surface and work (analytical) area of the TOF MS and for different radiation density of the laser radiation. The averaged energy and temperature of the ablated ions were estimated. The mechanism of the plasma formation in all cases studied was analyzed and discussed.