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ANALYSING CONTENT OF THE VOLATILE ORGANIC COMPOUND(VOC) FOR A TYPE OF  
RUBBER USED IN THE CREW MODULE OF MANNED SPACECRAFT

**Abstract**

the organic materials used in the crew module in a confined space degradation of volatile gas, most of these gases are volatile organic compounds, is an important source of air pollution. Therefore, the test total organic content is one important criteria of the evaluation of the toxicity of cabin materials. Presently evaluation method of the toxicity are mostly concerned about the short-term manned space flight material outgassing toxicity. This paper provides a method for evaluating device of crew module to test a rubber which is used in the cabin. The test method according to the standard Q\W 1155\_2008 Detecting method of hazard gas from non-metal materials in spacecraft crew module. Collecting the outgassing products from materials in given condition. And quantitative analysis of the total organic content by gas chromatography. The method of quantitative analysis is n-pentane external standard quantitative. The results show that the test device developed background pollution to meet the design requirements, the infection for the test results can be ignored. The content of VOC for the rubber is  $1.93\mu\text{g/g}$