THERMAL APPLICATIONS NOTE

Improved Purge Interaction Inside the TGA 51

One of the control parameters during a thermogravimetric analysis experiment is the purge gas. In many cases, it is desirable to operate in a completely inert atmosphere, since for some samples even the smallest amount of oxygen can affect the data. To efficiently eliminate all traces of air (oxygen) which are introduced when opening and closing the TGA 51 in loading a sample, it is recommended that a modified balance bell jar (PN 950161-901) be used (see figure below). This bell jar allows inert purge gas to be introduced through the balance assembly as well as through the normal purge gas inlet located on the back of the TGA. Experiments conducted in our applications laboratory indicate that this arrangement allows less than 50 ppm levels of oxygen to be achieved inside the TGA in under 10 minutes.