

PERFLUOROCOMPOUND SEPARATION AND PURIFICATION
METHOD AND SYSTEM

ABSTRACT

Provided is a novel method and system for separating and purifying perfluorocompounds (PFCs). The method comprises the steps of: (a) introducing a perfluorocompound-containing gas stream into a first distillation column; (b) removing a light product from the first column, and removing a heavy product from the first column; (c) introducing the first column light product into a second distillation column; (d) removing a light product from the second column, and removing a heavy product from the second column; (e) introducing the second column light product into a third distillation column; and (f) removing a light product from the third column, and removing a heavy product from the third column. The method and system can be advantageously used in the treatment of exhaust gases from semiconductor processing tools, and results in highly purified PFCs which can be recycled, thereby avoiding the release of PFCs into the atmosphere.

Figure 2