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## METHOD AND APPARATUS FOR ANALYZING AMINO ACID, PEPTIDE, PROTEIN, (54)**SACCHARIDE OR LIPID**

(57)The present invention aims to easily and simply perform selective detection/identification, extraction, separation, and purification of a phosphorylated amino acid, phosphorylated peptide, or phosphorylated protein from a sample containing any one of them, comprising the steps of: retaining the phosphorylated amino acid, phosphorylated peptide, or phosphorylated protein in a pretreatment column by passing the sample containing the phosphorylated amino acid, phosphorylated peptide, or phosphorylated protein through a reversed phase HPLC column having a titanium dioxide column as the pretreatment column and retaining a non-phosphorylated amino acid, peptide, or protein in the reverse phase HPLC column; eluting the non-phosphorylated amino acid, peptide, or protein that is retained in the reversed phase HPLC column; eluting the phosphorylated amino acid, phosphorylated peptide, or phosphorylated protein retained in the pretreatment column with buffer; and detecting it.

