We classify all K3 surfaces that one can obtain as quotient of   surfaces by certain subgroups of finite complex reflection groups of rank 4. The K3 surfaces are mostly singular with A-D-E singularities.

The proof of this fact avoid as much as possible a case-by-case analysis and involves the theory of finite complex reflection groups, more precisely

Lehrer-Springer theory. This construction generalizes a previous result

by W. Barth and by A. Sarti. This is a joint work with C. Bonnafé.