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**On the Construction of the Embedding  $D_4 < F_4 < E_6$  over Fields of Characteristic 2**

The purpose of this paper is to give an elementary and explicit construction of the embedding  $D_4 < F_4 < E_6$ , over a field  $K$  of characteristic 2 and to show that the Chevalley group of type  $D_4$  is isomorphic to  $\Omega_8^+(K)$ .

**Keywords:** Lie algebra, Lie group, root base, root element, Weyl group, generalized quadrangle, Siegel involution, Carter algebra and embedding algebras.

**MSC:** 17A75, 17A45.