The synthesis of K$_2$BiF$_5$ by a tribochemical reaction is reported. This compound crystallises in a K$_2$SmF$_5$-type arrangement with the lattice parameters $a = 11.3862(2)$, $b = 7.5480(1)$, $c = 6.6008(1)$ Å and space group $Pnma$. The effect of substituting Bi into the K$_2$SmF$_5$-type structure is discussed in comparison with other compounds considering the effect of the lone-pair activity of Bi$^{3+}$.

Key words: Fluorobismutates, Lone-pair Effects, Deformation Tensor