FeF_3	*hP*24	(176) $P6_3/m$ – ihg

FeF_3 HTB lt [1]
Structural features: FeF_6 octahedra share vertices to form an HTB-type framework with channels parallel to [001]. Slightly distorted derivative of hexagonal WO_3.

Leblanc M. et al. (1986) [1]
F_3Fe
$a = 0.7402$, $c = 0.7569$ nm, $c/a = 1.023$, $V = 0.3591$ nm^3, $Z = 6$

site	Wyck.	sym.	*x*	*y*	*z*	occ.	atomic environment
F1	12*i*	1	0.2111	0.4222	0.0		non-colinear Fe_2
F2	6*h*	*m*..	0.029	0.496	$^1/_4$		non-colinear Fe_2
Fe3	6*g*	-1	$^1/_2$	0	0		octahedron F_6

Transformation from published data: *y*,*x*,-*z*; origin shift 0 0 $^1/_2$
Experimental: powder, diffractometer, neutrons, $R_B = 0.048$, T = 4.2 K

Remarks: Phase stable at T < ~97 K.

References: [1] Leblanc M., De Pape R., Ferey G., Pannetier J. (1986), Solid State Commun. 58, 171-176.