$Mg_2NiH_{0.3}$	*hP*21	(180) $P6_222$ – jfdca

$Mg_2NiH_{0.3}$ [1]
Structural features: Filled-up derivative of Mg_2Ni with H between two Mg atoms.

Noréus D., Werner P.E. (1982) [1]
$H_{0.30}Mg_2Ni$
a = 0.52315, c = 1.3404 nm, c/a = 2.562, V = 0.3177 nm^3, Z = 6

site	Wyck.	sym.	x	y	z	occ.	atomic environment
Mg1	6*j*	..2	0.16	0.32	$^1/_2$		icosahedron $Ni_4Mg_5H_3$
Mg2	6*f*	2..	$^1/_2$	0	0.3609		single atom H
H3	3*d*	222	$^1/_2$	0	$^1/_2$	0.6	colinear Mg_2
Ni4	3*c*	222	$^1/_2$	0	0		bicapped square antiprism Ni_2Mg_8
Ni5	3*a*	222	0	0	0		bicapped square antiprism Ni_2Mg_8

Transformation from published data: origin shift 0 0 $^1/_2$
Experimental: powder, film, X-rays, R = 0.200

Remarks: In [1] the atom coordinates of the H site are misprinted as 0 0 $^1/_2$ instead of $^1/_2$ 0 0 (agreement with Wyckoff position 3*c*; checked on the drawing of the structure).

References: [1] Noréus D., Werner P.E. (1982), Acta Chem. Scand. A 36, 847-851.