Table Consisting of Various Thermoelectric Materials Researched for Power Generation

Material	Composition	Conduction Type	Optimum Temperature (°C)	Production process	ZT	Mechanical Properties'	Thermal Stability	Environmental Impact
Silicides	Mn-Si	P	300-600	Melting & Refining	0.80	Young's Modulus: 12,000MPa Poisson's ratio: 0.34	O	O
	Mg-Si	N	380-600	Melting & refining	1.07	-	Unstable without Coating	O
Si-Ge based	$Si_{0.8}Ge_{0.2}$	N	730	Hot press	1.00	Compression Strength 653 MPa	Stable for over 10 years	O
								O
	$Si_{0.8}Ge_{0.2}$	P	730	Hot press	0.70	Compression Strength 473 MPa		O
Oxide Based	$NaCo_2O_4$	P	30-500	Flux	1.20	-	O	O
	$(Ca,Sr,Bi)_2Co_2O_4$	P	330-730	Glass annealing	-	-	O	O
	$(ZnO)_5(In_{0.97}Y_{0.03})_2O_3$	N	430-800	RTGG	0.31	-	O	O
	$Zn_{0.98}Al_{0.02}O$	N	430-700	Solid phase reaction	0.42	-	O	X
PbTe based	PbTe	N	230-577	Hot press	0.70	-	Subject to heat history	Toxic
TAGS based	$GeTe-AgSbTe_2$	P	430		1.40	-	O	____
LaTe	LaTe ~1.4	N	-730		1-17-1.43	-	-	____
Filled-Skutterudites	$YbCo_{0.9}(ptPd)_{0.1}Sb_3$	N	330-630	Plasma Sintering	1.12	-	-	
	$Ce_{0.12}Fe_{0.7}Co_{3.29}Sb_{12}$	P	330-630	Plasma Sintering	0.93			____
Bi-Sb-Te-Se	Bi-Sb-Te-Se	P N	180-250	Hot press Crystalline	0.3-1.01	-	Sufficient Data Available	____
Zn_4Sb_3 based	$Zn_4(Sb_{0.97}Sn_{0.03})_3$	P	230-480	Plasma Sintering	1.00	-	Somewhat unstable	____
	Zn_4Sb_3	P	230-480	Plasma Sintering	1.22	-		____