Table 1: Comparison of the figure of merit *FOM* for $Ca_3Co_4O_9$ with published data for other p-type TCOs and some typical n-type TCOs.

Films	***FOM*** **(MΩ)$^{-1}$**	**Reference**	**Growth technique**
In_2O_3:Sn/ n-type	227894	*J.Appl.Phys.*86, 6451 (1999)	PLD
In_2O_3:Zr/n-type	686496	*Appl. Phys. Lett.* 78,1050(2001)	PLD
CdO:F/n-type	861957	Thin Solid Films 347, 295(1999)	Spray pyrolysis
ZnO:Al/n-type	24537	*J.Appl.Phys.*99,124505 (2006)	Sputtering
SnO_2:F/n-type	3076565	*J. Appl. Phys.* 83.1049(1998)	Spray pyrolysis
SnO_2:Zn/p-type	106.2	*J. Inorg. Organomet. Polym.* 22, 21(2012)	Sputtering
SnO_2:Sb/p-type	64.5	*Appl. Surf. Sci.* 286, 417 (2013)	PLD
Cr_2O_3(Mg, N) /p-type	7.2	*Appl. Phys. Lett.* 99, 111910 (2011)	Spray pyrolysis
α-Cr_2O_3:N /p-type	0.2	*Sol. Energy Mater. Sol. Cells* 95, 1005(2011)	sputtering
$CuAlO_2$/p-type	50	*Nature* 389, 939 (1997)	PLD
$CuAlO_2$/p-type	46.9	*J. Cryst. Growth 328 25 (2011)*	Sputtering
$CuCr_{0.97}Mg_{0.03}O_2$ /p-type	1637	*Thin Solid Films* 517, 3211 (2009)	PLD
$CuCr_{1-x}Mg_xO$ /p-type	5000	*J. Appl. Phys. 89, 8022 (2001)*	Sputtering
$CuScO_{2+x}$ /p-type	270	*Appl. Phys. Lett.* 77, 1325 (2000)	Sputtering
$CuGaO_2$/p-type	14	*J. Appl. Phys.* 89, 1790 (2001)	PLD
$CuYO_2$/p-type	1	*Thin Solid Films* 397, 244 (2001)	Co-evaporation
$AgCoO_2$/p-type	4.4	*Thin Solid Films* 411, 119 (2002)	Sputtering
$Bi_2Sr_2Co_2O_y$/p-type	800	*Chem. Commun.* 50, 1854 (2014)	Solution processing
$Ca_3Co_4O_9$/p-type	151	*Appl. Phys. Lett.* 104, 161901 (2014)	Solution processing
$Ca_3Co_4O_9$/p-type	988	**This paper**	PLD