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Mr. Lidong Chen graduated in chemistry engineering at Hunan University, China, in 1981, and received his Ph.D in materials science, in 1990 at Tohoku University, Japan. Professor Chen's recent scientific work mainly involves studies on the synthesis of new TE materials and development of TE devices. Main contributions to TE include:

- Succeeded to synthesize a series of new n-type filled skutterudites including $Ba_yCo_4Sb_{12}$, $Na_yCo_4Sb_{12}$, $K_yCo_4Sb_{12}$, $Sr_yCo_4Sb_{12}$ and improved their ZT over 1.2;
- Developed in-situ processes to prepare TE composites with nano-particles dispersed on grain-boundary and/or inside grain. Great improvement in TE performance was obtained in various system composites such as $Ba_yCo_4Sb_{12}/C_{60}$, $Yb_yCo_4Sb_{12}/Yb_2O_3$, $ZrNiSn/ZrO_2$ and $TiCoSb/TiO_2$;
- Developed Bi_2Te_3-based alloys with textured structure by SPS technique, which possess both high ZT and high mechanical strength and have been successfully applied in cooling and power generation devices;
- Developed a novel technique for fabricating skutterudite-based TE device.

Some publications:

1. X. Shi, W.Q. Zhang, **L.D. Chen**, and J. Yang, "Filling Fraction Limit for Intrinsic Voids in Crystals: Doping in Skutterudites", ***Phy. Rev. Lett.***, 95(2005)185503.
2. X. Y. Zhao, X. Shi, **L.D. Chen**, W.Q. Zhang, S.Q. Bai, Y. Z. Pei, X.Y. Li and T. Goto, "Synthesis of Yb*y*Co4Sb12/Yb2O3 composites and their thermoelectric properties", ***Appl. Phys. Lett.*,** 89(2006) 092121
3. Y.Z. Pei, **L.D. Chen**, W.Q. Zhang, X. Shi, S.Q. Bai, X.Y. Zhao, Z.G. Mei, and X.Y. Li, "Synthesis and thermoelectric properties of $K_yCo_4Sb_{12}$", ***Appl. Phys. Lett.*,** 89(2006)221107.
4. S.C. Liufu, **L.D. Chen**, Qin Yao, C.F. Wang, "Assembly of One-Dimensional Nanorods into Bi_2S_3 Thin Films with Enhanced Thermoelectric Property", ***Appl. Phys. Lett.***, 90 (2007) 112106.