

# Multi-State Advanced Manufacturing Consortium

RELEASE DATE VERSION PAGE

3/18/2016

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US DOL SPONSORED TAACCCT GRANT: TC23767
PRIMARY DEVELOPER: Jim Blair – Henry Ford College

## Solid State Electronics – Unit 1: Atomic Structure

Exercise – Insulator, Conductor and Semiconductor Material KEY

1.	The defining property of	f a semiconductor	material is	that it can	be doped with	n impurities	that alter	rits

- 1. The defining property of a semiconductor material is that it can be doped with impurities that after its electronic properties in a controllable way.
- 2. The defining property of conductor materials is that it permits electrons to flow freely from particle to particle.
- 3. The defining property of an insulator is that it does not readily conduct electricity.

Place a 1(semiconductor), 2(conductor) or 3(insulator) in front of each of the following materials listed below to describe the particular material.

	2	Silver
		Rubber
	1	germanium
3	2	Carbon
	2	Copper
		glass
	2	Gold
		Porcelain
	2	Aluminum
		Plastic
	2	Magnesium
	1	selenium
		Wool
	2	Tungsten
	2	Water
	2	Nickel
		Silk
	2	Mercury
		Paper
	2	Platinum
	2	Iron
	1	Silicon







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