The Seebeck Effect is named for East Prussian scientist Thomas Johann Seebeck (1770–1831). The metals in Seebeck's experiments were reacting to the temperatures, creating a current loop in the circuit and a magnetic field. In 1821, Seebeck discovered that a circuit made of two dissimilar metals conducts electricity if the two places where the metals connect are held at different temperatures. Seebeck placed a compass near the circuit he built and noticed that the needle deflected.