TCrystalline silicon solar cells, the primary photovoltaic technology, suffer from a mysterious problem. When exposed to light, their performance can degrade substantially (10% or more), due apparently to a reduction in carrier lifetime. The phenomena is associated with residual oxygen and boron doping, but with a contradictory dependence on doping. The first mystery is why should light exposure at room temperature affect lifetime in the first place? Light induced degradation (LID) initially seemed to correlate with B concentration, but then when P counterdoping was added it appeared that it was actually the hole concentration that mattered (but B had to be present). But wait, changing the hole concentration by co-doping with Ga doesn't significantly change LID. These mysteries and more will be explored and explained by careful examination of the crime scene (experimental observations) combined with detailed analysis back in the lab (fundamental calculations of the energetics of defects and complexes that might be present).