Differences between Brain Fingerprinting and Polygraphy ("Lie Detection")

Brain Fingerprinting	Polygraph
Detects crime-relevant information stored in the brain	Attempts to detect lies
Measures information-processing brain activity	Measures an emotional stress response
Admissible in court in the US	Not admissible in court in the US
Does not depend on the emotions of the subject	Depends on the emotional response of the subject
Is objective, does not depend on the subjective judgment of the person conducting the test	Depends on subjective interpretation of results by the person conducting the test
Automatically computes a mathematical determination of "information present" (the subject knows the crime-relevant information that is known only to the perpetrator and investigators) or "information absent" (he does not)	Polygrapher examines the responses and offers a subjective opinion regarding whether the subject is deceptive or non-deceptive
Provides a statistical confidence for each individual determination, e.g., "information present, 99.9% confidence"	No objective statistical confidence provided
Measures brain activity: Electroencephalograph (EEG)	Measures peripheral physical arousal hypothesized to accompany lying: skin conductance (related to sweating), blood pressure, breathing
Is an objective method of collecting evidence linking the suspect to the crime, like DNA and fingerprints	Is an adjunct to interrogation – questioning the subject about the crime, and attempting to determine if he is lying
No questions are asked or answered – directly detects information stored in the brain	Questions are asked and answered, attempts to determine if subject is lying based on emotion-driven physiological responses
Based on well-established science that is well accepted in the scientific community	Based on a questionable premise: an emotional response and accompanying physiological response means that the subject is lying