

CLAIMS

1. A method for detecting a thermal anomaly in a composite structure, comprising:
radiatively heating the composite structure for a period of between about 15
5 seconds (s) and about 25 s;
cooling the heated composite structure;
monitoring temperature changes of the composite structure as the composite
structure cools; and
generating a thermal image of the composite structure based on the
10 temperature changes.
2. The method of claim 1, wherein the composite structure is radiatively heated to
a depth of between about 550 microns (μm) and about 950 μm .
- 15 3. The method of claim 1 or 2, wherein the composite structure is radiatively
heated with a radiative source having a radiative power of between about 100 watts
(W) and 500 W.
4. The method of claim 3, wherein the radiative source is positioned at a distance
20 of between about 0.15 metres (m) and about 0.80 m from a surface of the composite
structure.
5. The method of claim 3 or 4, wherein the temperature changes of the composite
structure are monitored with a thermal camera and wherein the thermal camera is
25 positioned outside a path of reflected heat from the radiative source.
6. The method of claim 5, wherein the radiative source and the thermal camera are
both positioned substantially equidistant from the surface of composite structure.
- 30 7. The method of claim 5 or 6, wherein the thermal camera comprises an uncooled
detector and wherein the thermal camera is operable in a long-wave infrared (LWIR)
spectral band of between about 8 μm and about 15 μm .