(12) UK Patent Application (19) GB (11) 2519250

15.04.2015

(21) Application No: 1500725.5

(22) Date of Filing: 18.06.2013

Date Lodged: 16.01.2015

(30) Priority Data:

(31) 1210798.3 (32) 18.06.2012 (33) **GB**

(86) International Application Data: PCT/EP2013/062671 En 18.06.2013

(87) International Publication Data: WO2013/189956 En 27.12.2013

(71) Applicant(s):

Nonwovens Innovation & Research Institute Limited Centre for Technical Textiles, Woodhouse Lane, University of Leeds, LEEDS, LS2 9JT, **United Kingdom**

C-Tech Innovation Limited (Incorporated in the United Kingdom) Capenhurst Technology Park, Capenhurst, CHESTER, CH1 6EH, United Kingdom

(72) Inventor(s):

Stephen John Russell **Charles Rea**

(74) Agent and/or Address for Service:

Tangible IP Ltd Bramley House, 22 Otley Road, HARROGATE, North Yorkshire, HG2 0DN, United Kingdom

(51) INT CL:

D06H 7/22 (2006.01) **B29B 17/02** (2006.01)

(56) Documents Cited:

WO 2010/109410 A1 WO 2004/082938 A1 DE 003505571 A1 JP 2009001734 A US 5396715 A US 4722121 A JPH1181027

KR1020090130948

N.N.: "Conductive fiber Thunderon", Nihon Sanmo Dyeing Co., Ltd., 1 February 2001 (2001-02-01), pages 1-2, XP002715308, Retrieved from the Internet: URL:http://www.sanmo.co.jp/thunderon/ethun-01.html [retrieved on 2013-10-231 Marjorie J. Wall, Grace C. Frank: "A Study of the Spectral Distributions of Sun-Sky and Xenon-Arc Radiation in Relation to the Degradation of Some Textile Yarns: . Part I: Yarn Degradation", Textile Research Journal, 1971, pages 32-38, XP002715307,

(58) Field of Search:

INT CL B29B, B29K, B29L, D06H Other: EPO Internal, WPI

- (54) Title of the Invention: Article Assembly Disassembly system Abstract Title: Article Assembly Disassembly system
- (57) There is described a system, article, method, connecting means and apparatus for article reuse or recycling, which system comprises the assembling of an article from at least two components at least one of which comprises a textile material brought into communication with each other through one or more connecting means and the subsequent disassembling of the article and use of one or more of the components in the assembling stage. The assembled article is susceptible to automatic or semiautomatic disassembly through one or more of its connecting means being susceptible to a reduction in one or more mechanical properties under exposure of the article to electromagnetic energy especially microwave. The article may be a garment that has joins stitched with a microwave susceptible yarn. The yarn is ideally manufactured from pseudo-conductive materials and is metal free.

