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**Kalenian**

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(54) **COFFEE SYSTEM**

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(57) **ABSTRACT**

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Typical current methods for producing large quantities of extracts from solid raw materials such as ground, roasted coffee are designed for exhaustive extraction. Such methods are not ideally suited to producing high quality coffee extracts that are rich in flavor and fragrance, and which maintain the varietal characteristics of the roasted coffee from which they are produced. The current invention provides methods and apparatus for producing such high quality extracts. The invention provides methods that have sufficient flexibility and scalability to be used for a wide variety of applications, including for producing industrial-scale quantities of extracts for the food and beverage industry. The invention provides methods and apparatus that can produce highly concentrated, "gourmet quality" extracts for use as flavoring agents, beverage concentrates, and fragrances. The inventive extraction methods, in some embodiments, involve subjecting roasted coffee to a static pressure treatment with pressurized solvent and/or removing extract from the bed of roasted coffee with a non-solvent gas as a final extraction step. The inventive methods can reduce the extent of extraction of the roasted coffee and the level of bitter, off-flavor components present in the coffee extracts. The extracts produced according to the invention can be advantageously used for applications where high quality coffee extracts, with a relatively high concentration of soluble coffee solids and a relatively high level of sweetness but without substantial amounts of bitter oils and acids, are desired.

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(58) **Field of Search** ..... 426/432, 431,  
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**22 Claims, 4 Drawing Sheets**

