

<b>Specification Requirements – Objective Disclosure Requirements</b>	
<ul style="list-style-type: none"> <li>• Enablement is the central doctrine               <ul style="list-style-type: none"> <li>• It fulfills the “public disclosure” part of the patent bargain</li> <li>• It helps delimit the boundaries of patent protection by ensuring that the scope of a patent claim accords with the extent of the inventor’s technical contribution</li> </ul> </li> <li>• Written description doctrine               <ul style="list-style-type: none"> <li>• Historical role in policing new matter</li> <li>• Role as a standalone requirement</li> </ul> </li> </ul>	
<b>§§ 112(a)-(b) Language</b>	
<p><b>(a) In General.</b>-The specification shall contain a <b>written description</b> of the invention, and of the <u>manner and process of making and using it</u>, in such full, clear, concise, and exact terms as to <b>enable</b> any person skilled in the art to which it pertains, or with which it is most nearly connected, to <u>make and use</u> the same,</p>	<p>Written Description requirement.</p> <p>Enablement requirement.</p>
<p>and shall set forth the <b>best mode</b> contemplated by the inventor or joint inventor of carrying out his invention.</p>	<p>Best Mode requirement (subjective in part).</p>
<p><b>(b) Conclusion.</b>-The specification shall conclude with one or more claims <b>particularly pointing out and distinctly claiming</b> the subject matter which the inventor or joint inventor regards as the invention.</p>	<p>Definiteness requirement.</p>
<p>IP Survey, Fall 2012, Vetter <span style="float: right;">29</span></p>	

<b>Halliburton Energy Servs. v. M-I LLC, 514 F.3d 1244 (Fed. Cir 2008)</b>	
<p>1. A method for conducting a drilling operation in a subterranean formation using a <i>fragile gel</i> drilling fluid comprising:</p> <p>(a) an invert emulsion base;</p> <p>(b) one or more thinners;</p> <p>(c) one or more emulsifiers; and</p> <p>(d) one or more weighting agents, wherein said operation includes running casing in a borehole.</p> <p>(emphasis added).</p>	
<ul style="list-style-type: none"> <li>• Claim construction of “fragile gel”               <ul style="list-style-type: none"> <li>• no or low organophilic clay or lignite issue</li> <li>• Preamble phrase; why is it limiting?</li> <li>• Two aspects of the claim construction                   <ul style="list-style-type: none"> <li>• 1) A gel that easily transitions to a liquid state upon the introduction of force (e.g., when drilling starts) and returns to a gel when the force is removed (e.g., when drilling stops); and</li> <li>• 2) At rest, is capable of suspending drill cuttings and weighting materials</li> </ul> </li> </ul> </li> <li>• Is “fragile gel” definite?               <ul style="list-style-type: none"> <li>• A POSITA cannot determine how quickly the fluid will return to the liquid state, or its capacity for suspending drill cuttings and weighting materials</li> <li>• compared to “synergistically effective amount”</li> </ul> </li> </ul>	
<p>IP Survey, Fall 2012, Vetter <span style="float: right;">30</span></p>	

<b>Halliburton – note on a preamble phrase that is limiting</b>	
Preamble phrase “fragile gel” is not limiting; it remains like the rest of the preamble language: describing a general purpose, context, field, or use for the invention	Preamble phrase “fragile gel” is found to be limiting (by admission in this case; but various legal tests allow parties to argue that preamble language is limiting)
A – invert emulsion base	A – invert emulsion base
B – thinner(s)	B – thinner(s)
C – emulsifier(s)	C – emulsifier(s)
D – weighting agent(s)	D – weighting agent(s)
E – fluid is visco-elastic	E – fluid is visco-elastic
	F – fluid is a fragile gel
<p>IP Survey, Fall 2012, Vetter <span style="float: right;">31</span></p>	

<b>Halliburton – note on the presumption of validity</b>
<p>35 U.S.C. § 282                      Presumption of validity; defenses.  A patent shall be presumed valid. Each claim of a patent (whether in independent [or] dependent . . . form) shall be presumed valid independently of the validity of other claims; . . . dependent claims shall be presumed valid even though dependent upon an invalid claim. . . . The burden of establishing invalidity of a patent or any claim thereof shall rest on the party asserting such invalidity.</p> <ul style="list-style-type: none"> <li>● Standard of proof</li> <li>● Pros / cons of that standard?</li> </ul> <p>IP Survey, Fall 2012, Vetter <span style="float: right;">32</span></p>

**CFMT, Inc. v. YieldUp Int'l Corp., 349 F.3d 1333 (2003)**

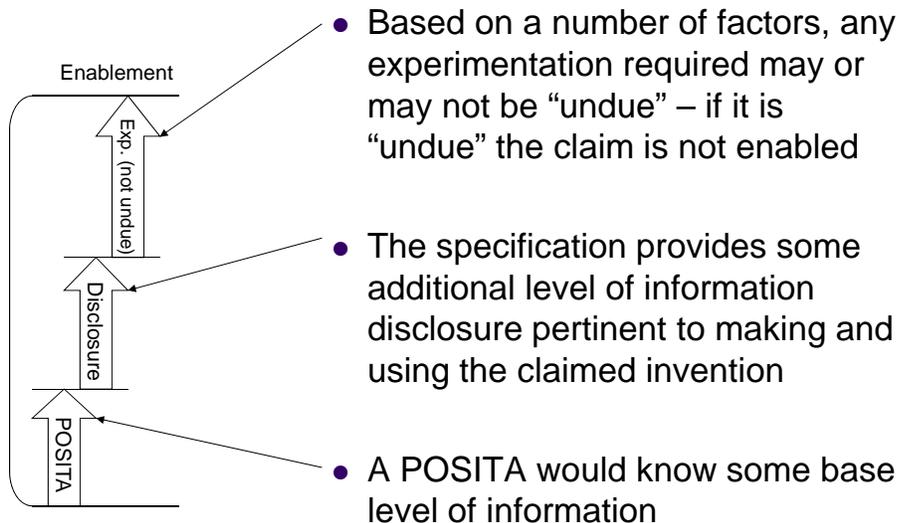
20. Apparatus for *wet processing* of semiconductor wafers comprising:

(a) vessel means for supporting said wafers in a closed circulation process stream wherein process fluids may sequentially flow past said wafers and

(b) means for supplying at least one chemical reagent to said process stream for reacting with portions of said wafers, said process stream being positioned within said vessel means such that said vessel means is hydraulically full with process fluid.

- Claim construction for “cleaning,” “treatment,” and “wet processing”
- Embodiments
  - Prototype that can clean penciled grease marks
  - Full Flow system for TI
- Success and/or failure with embodiments
- Effect of follow-on patent

**How to think about Enablement**



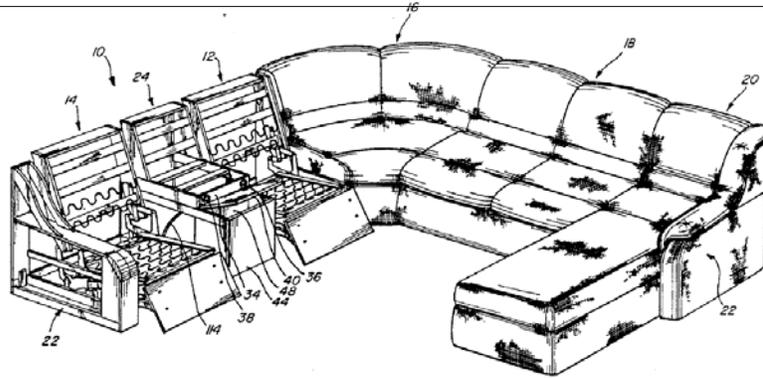
<b>Note on CFMT, Inc. v. YieldUp - embodiments</b>		
Hypothetical Prototype	Contaminant size the prototype can clean	Months it takes a POSITA to make the prototype operate based on teachings from the patent instrument
One	100 microns or larger	1 month
Two	90-100 microns	2 months
Three	80-90 microns	3 months
Four	70-80 microns	4 months
Five	60-70 microns	5 months
Six	50-60 microns	6 months
Seven	40-50 microns	7 months
Eight	30-40 microns	8 months
Nine	20-30 microns	9 months
Ten	10-20 microns	10 months

IP Survey, Fall 2012, Vetter 35

- Enablement – undue experimentation – Wands factors**
- quantity of experimentation necessary
  - amount of direction or guidance provided
  - presence or absence of working examples
  - nature of the invention
  - state of the prior art
  - relative skill of those in the art
  - predictability or unpredictability of the art
  - the breadth of the claims
- IP Survey, Fall 2012, Vetter 36

**Gentry Gallery v. Berkline Corp., 134 F.3d 1473 (Fed. Cir. 1998)**

1. A sectional sofa comprising:  
a pair of reclining seats disposed in parallel relationship with one another in a double reclining seat sectional sofa section being without an arm at one end . . . ,  
each of said reclining seats having a backrest and seat cushions and movable between upright and reclined positions . . . ,  
a *fixed console* disposed in the double reclining seat sofa section between the pair of reclining seats and with the console and reclining seats together comprising a unitary structure,  
said console including an armrest portion for each of the reclining seats; said arm rests remaining fixed when the reclining seats move from one to another of their positions,  
and a *pair of control means*, one for each reclining seat; *mounted on the double reclining seat sofa section* . . .



**Ariad Pharms., Inc. v. Eli Lilly & Co., 598 F.3d 1336 (Fed. Cir. 2010)**

Possession Test: whether the disclosure of the application relied upon reasonably conveys to those skilled in the art that the inventor had possession of the claimed subject matter as of the filing date

The term "possession," however, has never been very enlightening. . . . "possession as shown in the disclosure" is a more complete formulation. . . .

This inquiry, as we have long held, is a question of fact. Thus, we have recognized that determining whether a patent complies with the written description requirement will necessarily vary depending on the context. Specifically, the level of detail required to satisfy the written description requirement varies depending on the nature and scope of the claims and on the complexity and predictability of the relevant technology. For generic claims, we have set forth a number of factors for evaluating the adequacy of the disclosure, including "the existing knowledge in the particular field, the extent and content of the prior art, the maturity of the science or technology, [and] the predictability of the aspect at issue."

The law must be applied to each invention at the time it enters the patent process, for each patented advance has a novel relationship with the state of the art from which it emerges. . . .

There are, however, a few broad principles that hold true across all cases. We have made clear that the written description requirement does not demand either examples or an actual reduction to practice; a constructive reduction to practice that in a definite way identifies the claimed invention can satisfy the written description requirement. Conversely, we have repeatedly stated that actual "possession" or reduction to practice outside of the specification is not enough. Rather, as stated above, it is the specification itself that must demonstrate possession. And while the description requirement does not demand any particular form of disclosure, or that the specification recite the claimed invention in haec verba, a description that merely renders the invention obvious does not satisfy the requirement.

### Problems

Alpha owns the '123 patent where claim 1 is: a cleaning fluid comprising: (a) 5-15% hydroxide detergent; (b) 2-10% scrubbing bubble facilitator fluid (SBFF); (c) an effective amount of mixing agent; and (d) balance water. The inventor is Smith, an employee of Alpha. This problem will model claim 1's four limitations symbolically as ABCD. An embodiment of claim 1 will implement actual percentages for all four limitations, and POSITAs understand that the sum will equal one hundred percent. For this set, any facts stated in a particular problem apply in all problems.

1. POSITAs are familiar with mixing agents for hydroxide detergent based cleaning fluids. Such mixing agents are easy to figure into a composition. The only mentions in the '123 patent specification about the mixing agent are that the most effective cleaning action occurred around 5%, that the JohnsonReMix agent was ineffective at all plausible percentages, and that some mixing agent was absolutely necessary. It turns out, however, that Alpha did not understand how to use JohnsonReMix; their directions in the specification incorrectly say how to use it. Beta makes and sells a first accused infringing product (AID<sub>1</sub>) that clearly has A, B, & D. For the mixing agent, AID<sub>1</sub> uses the JohnsonReMix product at 6% because Beta understood the proper way to use JohnsonReMix. Proffer a claim construction on behalf of Beta for limitation C in claim 1 with the objective of avoiding infringement with AID<sub>1</sub>. What might Alpha's claim construction look like in response? Assess Beta's ability to prevail on a definiteness or enablement challenge for limitation C.

### Problems

Alpha owns the '123 patent where claim 1 is: a cleaning fluid comprising: (a) 5-15% hydroxide detergent; (b) 2-10% scrubbing bubble facilitator fluid (SBFF); (c) an effective amount of mixing agent; and (d) balance water. The inventor is Smith, an employee of Alpha. This problem will model claim 1's four limitations symbolically as ABCD. An embodiment of claim 1 will implement actual percentages for all four limitations, and POSITAs understand that the sum will equal one hundred percent. For this set, any facts stated in a particular problem apply in all problems.

2. Beta makes and sells cleaning fluid AID<sub>2</sub> that has ABC, but instead of a balance of water, it uses coconut juice. Coconut water is a mostly-clear, naturally-occurring liquid that builds up inside a coconut. It is about 95% water and about 5% dissolved solids. The '123 patent specification discusses in five places the need for filtered, clear water with only trace amounts of solids. The patent instrument never mentions coconut water. Strangely, however, at the time of the '123 patent's filing, Smith was making batches of the cleaning fluid with coconut water. His batches were an embodiment of the claim, and worked just fine with coconut water. No one else knew Smith made these batches. He took it home to wash his car, thinking "this is the best way to make this stuff and my car will look better than anyone else's on my street." Proffer a claim construction on behalf of Beta for limitation D in claim 1 with the objective of avoiding infringement with AID<sub>2</sub>. What might Alpha's claim construction look like in response? Although after the AIA Beta cannot challenge the patent for a best mode violation, assess whether the patent properly discloses a best mode for claim 1.

### Problems

Alpha owns the '123 patent where claim 1 is: a cleaning fluid comprising: (a) 5-15% hydroxide detergent; (b) 2-10% scrubbing bubble facilitator fluid (SBFF); (c) an effective amount of mixing agent; and (d) balance water. The inventor is Smith, an employee of Alpha. This problem will model claim 1's four limitations symbolically as ABCD. An embodiment of claim 1 will implement actual percentages for all four limitations, and POSITAs understand that the sum will equal one hundred percent. For this set, any facts stated in a particular problem apply in all problems.

3. No POSITA has ever heard of the term "scrubbing bubble facilitator fluid." Alpha's factory discharges numerous types of foaming agents in varying quantities into a big vat for pickup each week. Within the factory it uses several dozen foaming agents. Smith simply takes material from the big vat as his SBFF to make the claim 1 cleaning fluid. POSITAs know how to use individual foaming agents, but do not know how to combine them. The '123 patent specification does not discuss foaming agents nor does it give any details about SBFF. Assess Beta's ability to prevail on a definiteness or enablement challenge for limitation B.

### Problems

Alpha owns the '123 patent where claim 1 is: a cleaning fluid comprising: (a) 5-15% hydroxide detergent; (b) 2-10% scrubbing bubble facilitator fluid (SBFF); (c) an effective amount of mixing agent; and (d) balance water. The inventor is Smith, an employee of Alpha. This problem will model claim 1's four limitations symbolically as ABCD. An embodiment of claim 1 will implement actual percentages for all four limitations, and POSITAs understand that the sum will equal one hundred percent. For this set, any facts stated in a particular problem apply in all problems.

4. About thirteen months after filing, while the '123 application was still before the PTO, Alpha added independent claim 2 to ABD. In other words, claim 2 is claim 1 rewritten to eliminate limitation C. In the United States, Beta makes and sells cleaning fluid AID<sub>3</sub> that is an embodiment of ABD. Assess Beta's ability to prevail on a written description challenge for limitation C to invalidate claim 2 and thus escape infringement for AID<sub>3</sub>.

## 35 USC §101

Whoever invents or discovers any  
new and useful  
process,

machine, manufacture, or  
composition of matter,

or any new and useful improvement  
thereof,

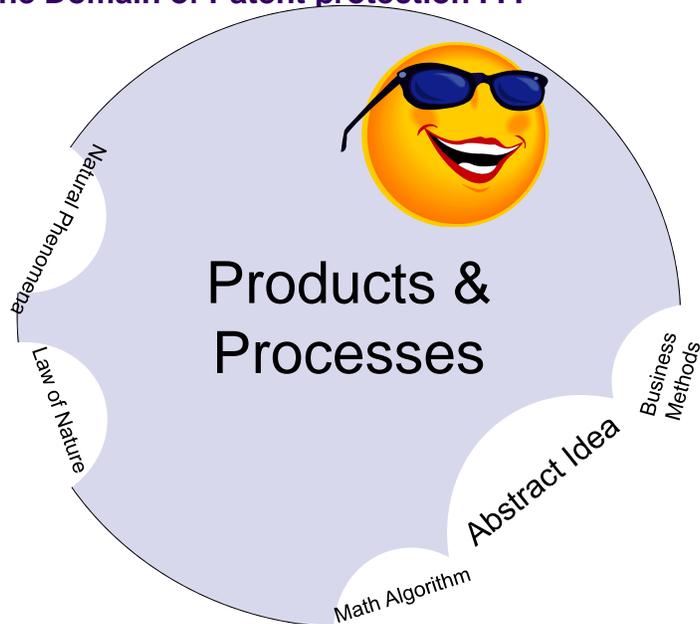
may obtain a patent therefor, subject to the  
conditions and requirements of this title

“Product”  
claims or  
inventions

## Patent Eligibility - Process

- 35 U.S.C. 100(b)
  - The term "process" means process, art or method, and includes a new use of a known process, machine, manufacture, composition of matter, or material.
- Modern test of the bounds of the broad term “process” has been in relation to computer software
  - Is software more like abstract principles and mental steps or like implemented electronic circuits?

## The Domain of Patent protection . . .



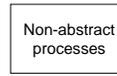
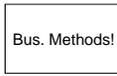
## In re Nuijten, 500 F.3d 1346 (Fed. Cir. 2007)

Nuijten claim 14: A *signal* with embedded supplemental data, the signal being encoded in accordance with a given encoding process and selected samples of the signal representing the supplemental data, and at least one of the samples preceding the selected samples is different from the sample corresponding to the given encoding process.

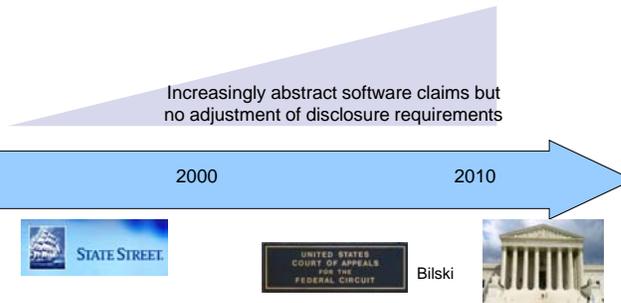
- A “watermark distortion-reducing encoded signal”, when claimed by itself, is not a “manufacture” because it is a transitory embodiment (mere propagating signal) {nor is it a “process”, “machine” or “composition”}
- As a transitory embodiment, it is not an “article” as in Chakrabarty

## “Step Change” in Patent Law - Abstract Ideas & Business Methods

- Eligible Subject Matter



- Utility
- Statutory Bars, Novelty
- Non-obvious
- Disclosure Requirements



## In re Bilski (Fed. Cir. 2008) (en banc)

- Claimed method does not transform an “article”
  - Machine-or-Transformation (MoT) is **THE** test
    - Need meaningful limits on claim scope
  - Field preemption prevention policy concern (vs. particular application)
- “articles”
  - “The raw materials of many information-age processes, however, are electronic signals and electronically-manipulated data.”
  - Make it a “different state or thing”
  - Too abstract to be an article: “legal obligations, organizational relationships, and business risks.”
  - Data that represents physical and tangible objects/substances is an “article”

Bilski claim 1: A method for managing the consumption risk costs of a commodity sold by a commodity provider at a fixed price comprising the steps of:

- initiating a series of transactions between said commodity provider and consumers of said commodity wherein said consumers purchase said commodity at a fixed rate based upon historical averages, said fixed rate corresponding to a risk position of said consumer;
- identifying market participants for said commodity having a counter-risk position to said consumers; and
- initiating a series of transactions between said commodity provider and said market participants at a second fixed rate such that said series of market participant transactions balances the risk position of said series of consumer transactions

## Bilski v. Kappos, 130 S. Ct. 3218 (2010)

- Some methods of doing business might pass muster as a “process” under section 101
  - After State Street, Congress enacted a type of “prior user rights” for methods of doing business
  - This foreclosed an interpretation where one might say “no business methods can be a ‘process’ in a section 101 sense
- The “machine-or-transformation” test is not the only test for when a claim recites a qualifying “process”
- Emphasis is still on the need for limits on the claim to make it non-abstract
  - Field preemption prevention policy concern (vs. particular application)

Bilski claim 1: A method for managing the consumption risk costs of a commodity sold by a commodity provider at a fixed price comprising the steps of:

- (a) initiating a series of transactions between said commodity provider and consumers of said commodity wherein said consumers purchase said commodity at a fixed rate based upon historical averages, said fixed rate corresponding to a risk position of said consumer;
- (b) identifying market participants for said commodity having a counter-risk position to said consumers; and
- (c) initiating a series of transactions between said commodity provider and said market participants at a second fixed rate such that said series of market participant transactions balances the risk position of said series of consumer transactions

## Bilski v. Kappos, 130 S. Ct. 3218 (2010)

- Commentary on the machine or transformation test and on business methods as claimed processes:

n.8 This Court's precedents establish that the machine-or-transformation test is a useful and important clue, an investigative tool, for determining whether some claimed inventions are processes under § 101. The machine-or-transformation test is not the sole test for deciding whether an invention is a patent-eligible “process.” . . .

the machine-or-transformation test would create uncertainty as to the patentability of software, advanced diagnostic medicine techniques, and inventions based on linear programming, data compression, and the manipulation of digital signals . . .

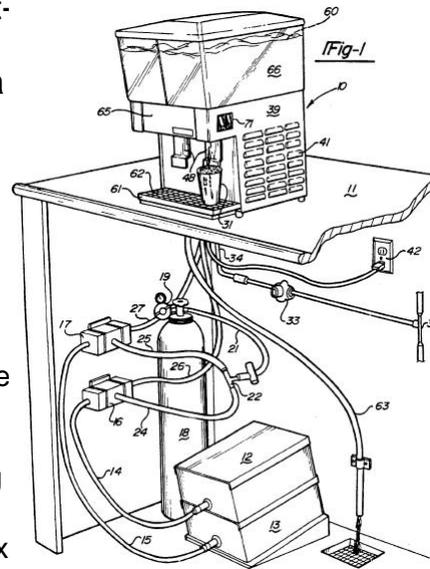
Interpreting § 101 to exclude all business methods simply because business method patents were rarely issued until modern times revives many of the previously discussed difficulties. . . . At the same time, some business method patents raise special problems in terms of vagueness and suspect validity. See *eBay Inc. v. MercExchange, L.L. C.*, 547 U.S. 388, 397 (2006) (KENNEDY, J., concurring). The Information Age empowers people with new capacities to perform statistical analyses and mathematical calculations with a speed and sophistication that enable the design of protocols for more efficient performance of a vast number of business tasks. If a high enough bar is not set when considering patent applications of this sort, patent examiners and courts could be flooded with claims that would put a chill on creative endeavor and dynamic change.

Bilski claim 1: A method for managing the consumption risk costs of a commodity sold by a commodity provider at a fixed price comprising the steps of:

- (a) initiating a series of transactions between said commodity provider and consumers of said commodity wherein said consumers purchase said commodity at a fixed rate based upon historical averages, said fixed rate corresponding to a risk position of said consumer;
- (b) identifying market participants for said commodity having a counter-risk position to said consumers; and
- (c) initiating a series of transactions between said commodity provider and said market participants at a second fixed rate such that said series of market participant transactions balances the risk position of said series of consumer transactions

**Juicy Whip, Inc. v. Orange Bang, Inc., 185 F.3d 1364 (Fed. Cir. 1999)**

- Juicy Whip’s patent is for “post-mix” beverage dispenser that simulates the presentation of a “pre-mix” beverage dispenser
- District court, on S/J, held patent invalid
  - Purpose is to increase sales by deception
  - Other claimed usefulness (eliminating need to clean) is not independent of deceptive purpose and thus insufficient to raise a genuine issue of material fact
  - Improves prior art only by making the product more saleable
  - Is merely an imitation of a pre-mix dispenser



**Juicy Whip v. Orange Bang**



- Utility threshold is not high
  - merely need some identifiable benefit, useful result, or beneficial end
- District court applied two pre-1952 Second Circuit cases about creating artificial impressions of higher quality
  - “Spotting” unspotted tobacco leaves
  - “Seaming” seamless hosiery
- These cases do not represent the modern state of the utility doctrine
  - The fact that one product can be altered to make it look like another is in itself a specific benefit sufficient to satisfy the utility requirement
  - Product imitation is not unusual
  - It is not unlawful to display the simulated beverage
  - Utility requirement is not meant to make the courts or the PTO be arbiters of deceptive trade practices

### Types of Utility

- operability
- beneficial/moral utility
- immediate benefit to the public, i.e., substantial utility, with its synonyms of practical and real-world utility
- specific utility, seeking to tie the utility to the claimed subject matter
- credible utility, so that the utility is provable to a POSITA.

From 2001 Revised Utility Guidelines: For example, a claim to a polynucleotide whose use is disclosed simply as a "gene probe" or "chromosome marker" would not be considered to be *specific* in the absence of a disclosure of a specific DNA target.